

50+ 291 = 162 + 03

SAMPLES DROPPED OFF BY JEREMY SMITH
ON 6/27/16 BUT NO CDC or SPREADSHEET

Spreadsheet From Jeremy Smith, GA DNR
6/28/16 Imbeall @ 1600



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4**

Science and Ecosystem Support Division
Enforcement and Investigations Branch
980 College Station Road
Athens, Georgia 30605-2720

September 26, 2012

4SESD-EIB

MEMORANDUM

SUBJECT: GAEPD - Conasauga River PFC Study
SESD Laboratory Analytical Data
SESD Project ID - 12-0360

FROM: Mike Neill, Environmental Scientist
Enforcement Section *M. Neill*

THRU: Mike Bowden, Chief
Enforcement Section *M. Bowden*

TO: Lee Thomas, Ground-Water Hydrologist
Water Protection Division

Attached is SESD's Final Analytical Report for the perfluorinated chemical (PFC) analysis conducted on the surface water samples collected by the Georgia Department of Natural Resource, Environmental Protection Division (GAEPD) personnel on July 9 and July 11, 2012. Also attached is Table 1 which summarizes SESD's Laboratory Analytical Data. If you have any questions concerning the analysis, please call me at (706) 355-8614 or email me at neill.mike@epa.gov.

Attachment

Table 1. SESD LABORATORY ANALYTICAL DATA SUMMARY
GAEPD - Conasauga River PFC Study

Station ID		01	02	03	04	05	06	07
Sample ID		Con @ 76	Con @ Tibbs	Coa @ Keith	Con @ Airport	Holly @ Fox	DRO @ RBEND	Con @ Tilton
GAEPD ID		Conasauga R @ Hwy 76	Conasauga R @ Tibbs Bridge	Coahulla Cr @ Keith's Mill Rd	Conasauga R @ Airport Rd	Holly Cr @ Fox Bridge Rd	Drowning Bear Cr @ Riverbend Rd	Conasauga R @ Tilton Bridge Rd
Sample Date/Time		7/9/2012	7/9/2012	7/9/2012	7/9/2012	7/9/2012	7/9/2012	7/9/2012
Analyte	Units	EPA						
	PHA							
Perfluorooctane sulfonic acid	ug/l	0.200	< 0.050 U	0.029 J,O	0.032 J,O	0.060	0.18	0.18
Perfluorooctanoic acid	ug/l	0.400	< 0.050 U	< 0.050 U	< 0.050 U	0.037 J,O	0.11	0.18
PFBS	ug/l	--	< 0.050 U	0.014 J,O	0.030 J,O	0.024 J,O	0.074	0.12
PFDA	ug/l	--	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
PFHpA	ug/l	--	< 0.050 U	< 0.050 U	< 0.050 U	0.052	0.051	0.079
PFHxA	ug/l	--	< 0.050 U	0.018 J,O	< 0.050 U	0.22	0.056	0.12
PFHxS	ug/l	--	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U
PFNA	ug/l	--	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U	< 0.050 U

Station ID		08	09	10	11	12	13	14
Sample ID		Con @ 136	Oos @ 3	Coo @ 225	Oos @ 156	Oot @ Salem	Oot @ 53	Oot @ 156
GAEPD ID		Conasauga R @ Hwy 136	Oostanaula R @ Hwy 3	Coosawatee R @Hwy 225	Oostanaula R @ Hwy 156	Oothkalooga Cr @ Salem Rd	Oothkalooga Cr @ Hwy 53	Oothkalooga Cr @ Hwy 156
Sample Date/Time		7/9/2012	7/9/2012	7/9/2012	7/11/2012	7/11/2012	7/11/2012	7/11/2012
Analyte	Units	EPA	PHA					
	Perfluorooctane sulfonic acid	ug/l	0.200					
	Perfluorooctanoic acid	ug/l	0.400					
	PFBS	ug/l	--					
	PFDA	ug/l	--					
	PFHpA	ug/l	--					
	PFHxA	ug/l	--					
	PFHxS	ug/l	--					
	PFNA	ug/l	--					

Table 1. SEDS LABORATORY ANALYTICAL DATA SUMMARY
GAEPD - Conasauga River PFC Study

Station ID	15		16		17		18		19		20	
	Sample ID		Sample ID		Sample ID		Sample ID		Sample ID		Sample ID	
GAEPD ID	Oos @ 136		Oos @ Reeves		Oos @ 140		Oos @ Rside		Eto @ 53		Coo @ Lock	
	Oostanaula R @ 136C		Oostanaula R @ Reeves Station Rd		Oostanaula R @ Hwy 140		Oostanaula R @ Riverside Park		Etoah R @ Hwy 53		Coosa R @ Lock & Dam Park	
Sample Date/Time		7/11/2012	7/11/2012		7/11/2012		7/11/2012		7/11/2012		7/11/2012	
Analyte	Units	EPA	PHA									
Perfluorooctane sulfonic acid	ug/l	0.200		0.055		0.042 J,O		0.051		0.048 J,O		< 0.050 U
Perfluorooctanoic acid	ug/l	0.400		0.034 J,O		< 0.050 U		0.023 J,O		0.023 J,O		< 0.050 U
PFBS	ug/l	--		0.088		0.089		0.090		0.080		< 0.050 U
PFDA	ug/l	--		< 0.050 U		< 0.050 U		< 0.050 U		< 0.050 U		< 0.050 U
PFHpA	ug/l	--		< 0.050 U		0.015 J,O		0.015 J,O		< 0.050 U		< 0.050 U
PFHxA	ug/l	--		0.036 J,O		0.039 J,O		0.038 J,O		0.030 J,O		0.028 J,O
PFHxS	ug/l	--		< 0.050 U		< 0.050 U		< 0.050 U		< 0.050 U		< 0.050 U
PFNA	ug/l	--		< 0.050 U		< 0.050 U		< 0.050 U		< 0.050 U		< 0.050 U



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

September 25, 2012

4SESD-ASB

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 12-0360, Conasauga River PFC Study - GAEPD
Compliance Monitoring

FROM: Sallie Hale
ASB Organic Chemistry Section Chief

THRU: Gary Bennett, Chief
Analytical Support Branch

TO: Mike Neill

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Analytical Support Branch's (ASB) Laboratory Operations and Quality Assurance Manual (ASB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the ASB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Section 5.2 of the ASB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:

Method Used:

Accreditations:

Semi Volatile Organics (SVOA)

PFCs

ASB 100S (Water)

None



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Sample Disposal Policy

Because of the laboratory's limited space for long term sample storage, our policy is to dispose of samples on a periodic schedule. Please note that within 60 days of this memo, the original samples and all sample extracts and/or sample digestates will be disposed of in accordance with applicable regulations. The 60-day sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time if you have a special project need. If you wish for the laboratory to hold samples beyond the 60-day period, please contact our Sample Control Coordinator, Debbie Colquitt, by e-mail at Colquitt.Debbie@epa.gov, and provide a reason for holding samples beyond 60 days



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SAMPLES INCLUDED IN THIS REPORT

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
Con @ 76	E123001-01	Surface Water	7/9/12 10:45	7/13/12 9:18
Con @ Tibbs	E123001-02	Surface Water	7/9/12 11:20	7/13/12 9:18
Coa @ Keith	E123001-03	Surface Water	7/9/12 11:44	7/13/12 9:18
Con @ Airport	E123001-04	Surface Water	7/9/12 11:59	7/13/12 9:18
Holly @ Fox	E123001-05	Surface Water	7/9/12 12:15	7/13/12 9:18
DRO @ RBEND	E123001-06	Surface Water	7/9/12 13:35	7/13/12 9:18
Con @ Tilton	E123001-07	Surface Water	7/9/12 14:02	7/13/12 9:18
Con @ 136	E123001-08	Surface Water	7/9/12 14:25	7/13/12 9:18
Oos @ 3	E123001-09	Surface Water	7/9/12 14:42	7/13/12 9:18
Coo @ 225	E123001-10	Surface Water	7/9/12 15:05	7/13/12 9:18
Oos @ 156	E123001-11	Surface Water	7/11/12 13:15	7/13/12 9:18
Oot @ Salem	E123001-12	Surface Water	7/11/12 11:13	7/13/12 9:18
Oot @ 53	E123001-13	Surface Water	7/11/12 11:38	7/13/12 9:18
Oot @ 156	E123001-14	Surface Water	7/11/12 12:56	7/13/12 9:18
Oos @ 136	E123001-15	Surface Water	7/11/12 12:38	7/13/12 9:18
Oos @ Reeves	E123001-16	Surface Water	7/11/12 13:35	7/13/12 9:18
Oos @ 140	E123001-17	Surface Water	7/11/12 14:04	7/13/12 9:18
OOS @ RSIDE	E123001-18	Surface Water	7/11/12 14:30	7/13/12 9:18
Eto @ 53	E123001-19	Surface Water	7/11/12 15:13	7/13/12 9:18
Coo @ Lock	E123001-20	Surface Water	7/11/12 15:42	7/13/12 9:18



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DATA QUALIFIER DEFINITIONS

- U The analyte was not detected at or above the reporting limit.
J The identification of the analyte is acceptable; the reported value is an estimate.
O-2 Result greater than MDL but less than MRL.

ACRONYMS AND ABBREVIATIONS

- CAS Chemical Abstracts Service
Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.
- ISO The test, if analyzed after June 26, 2012, is accredited under the EPA Region 4 ASB's ISO/IEC 17025 accreditation issued by ANSI-ASQ National Accreditation Board/ACLASS. Refer to certificate and scope of accreditation AT-1691.
- MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
- MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
- TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.



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Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Con @ 76

Lab ID: E123001-01

Station ID: 01

Matrix: Surface Water

Date Collected: 7/9/12 10:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:13	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:13	ASB 100S
375-85-9	PFHpA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:13	ASB 100S
307-24-4	PFHxA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:13	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:13	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:13	ASB 100S
335-67-1	PFOA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:13	ASB 100S
1763-23-1	PFOS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:13	ASB 100S



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Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Con @ Tibbs

Lab ID: E123001-02

Station ID: 02

Matrix: Surface Water

Date Collected: 7/9/12 11:20

C4S Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.014	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 16:30	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:30	ASB 100S
375-85-9	PFHpA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:30	ASB 100S
307-24-4	PFHxA	0.018	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 16:30	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:30	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:30	ASB 100S
335-67-1	PFOA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:30	ASB 100S
1763-23-1	PFOS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:30	ASB 100S



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Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Coa @ Keith

Lab ID: E123001-03

Station ID: 03

Matrix: Surface Water

Date Collected: 7/9/12 11:44

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.030	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 16:47	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:47	ASB 100S
375-85-9	PFHpA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:47	ASB 100S
307-24-4	PFHxA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:47	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:47	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:47	ASB 100S
335-67-1	PFOA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 16:47	ASB 100S
1763-23-1	PFOS	0.029	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 16:47	ASB 100S



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Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Con @ Airport

Lab ID: E123001-04

Station ID: 04

Matrix: Surface Water

Date Collected: 7/9/12 11:59

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.025	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 17:04	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:04	ASB 100S
375-85-9	PFHpA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:04	ASB 100S
307-24-4	PFHxA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:04	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:04	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:04	ASB 100S
335-67-1	PFOA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:04	ASB 100S
1763-23-1	PFOS	0.032	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 17:04	ASB 100S



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Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Holly @ Fox

Lab ID: E123001-05

Station ID: 05

Matrix: Surface Water

Date Collected: 7/9/12 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.024	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 17:21	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:21	ASB 100S
375-85-9	PFHpA	0.052		ug/L	0.050	7/18/12 16:09	9/14/12 17:21	ASB 100S
307-24-4	PFHxA	0.22		ug/L	0.050	7/18/12 16:09	9/14/12 17:21	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:21	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:21	ASB 100S
335-67-1	PFOA	0.037	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 17:21	ASB 100S
1763-23-1	PFOS	0.060		ug/L	0.050	7/18/12 16:09	9/14/12 17:21	ASB 100S



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Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: DRO @ RBEND

Lab ID: E123001-06

Station ID: 06

Matrix: Surface Water

Date Collected: 7/9/12 13:35

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.074		ug/L	0.050	7/18/12 16:09	9/14/12 17:38	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:38	ASB 100S
375-85-9	PFHpA	0.051		ug/L	0.050	7/18/12 16:09	9/14/12 17:38	ASB 100S
307-24-4	PFHxA	0.056		ug/L	0.050	7/18/12 16:09	9/14/12 17:38	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:38	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 17:38	ASB 100S
335-67-1	PFOA	0.11		ug/L	0.050	7/18/12 16:09	9/14/12 17:38	ASB 100S
1763-23-1	PFOS	0.18		ug/L	0.050	7/18/12 16:09	9/14/12 17:38	ASB 100S



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Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Con @ Tilton

Lab ID: E123001-07

Station ID: 07

Matrix: Surface Water

Date Collected: 7/9/12 14:02

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.12		ug/L	0.050	7/18/12 16:09	9/14/12 17:55	ASB 100S
335-76-2	PFDA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 17:55	ASB 100S
375-85-9	PFHpA	0.079		ug/L	0.050	7/18/12 16:09	9/14/12 17:55	ASB 100S
307-24-4	PFHxA	0.12		ug/L	0.050	7/18/12 16:09	9/14/12 17:55	ASB 100S
355-46-4	PFHxS	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 17:55	ASB 100S
375-95-1	PFNA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 17:55	ASB 100S
335-67-1	PFOA	0.18		ug/L	0.050	7/18/12 16:09	9/14/12 17:55	ASB 100S
1763-23-1	PFOS	0.18		ug/L	0.050	7/18/12 16:09	9/14/12 17:55	ASB 100S



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Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Con @ 136

Lab ID: E123001-08

Station ID: 08

Matrix: Surface Water

Date Collected: 7/9/12 14:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.12		ug/L	0.050	7/18/12 16:09	9/14/12 18:12	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 18:12	ASB 100S
375-85-9	PFHpA	0.068		ug/L	0.050	7/18/12 16:09	9/14/12 18:12	ASB 100S
307-24-4	PFHxA	0.12		ug/L	0.050	7/18/12 16:09	9/14/12 18:12	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 18:12	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 18:12	ASB 100S
335-67-1	PFOA	0.17		ug/L	0.050	7/18/12 16:09	9/14/12 18:12	ASB 100S
1763-23-1	PFOS	0.21		ug/L	0.050	7/18/12 16:09	9/14/12 18:12	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Oos @ 3

Lab ID: E123001-09

Station ID: 09

Matrix: Surface Water

Date Collected: 7/9/12 14:42

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.088		ug/L	0.050	7/18/12 16:09	9/14/12 18:29	ASB 100S
335-76-2	PFDA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 18:29	ASB 100S
375-85-9	PFHpA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 18:29	ASB 100S
307-24-4	PFHxA	0.029 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 18:29	ASB 100S
355-46-4	PFHxS	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 18:29	ASB 100S
375-95-1	PFNA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 18:29	ASB 100S
335-67-1	PFOA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 18:29	ASB 100S
1763-23-1	PFOS	0.036 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 18:29	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Coo @ 225

Lab ID: E123001-10

Station ID: 10

Matrix: Surface Water

Date Collected: 7/9/12 15:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.079		ug/L	0.050	7/18/12 16:09	9/14/12 18:46	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 18:46	ASB 100S
375-85-9	PFHpA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 18:46	ASB 100S
307-24-4	PFHxA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 18:46	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 18:46	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 18:46	ASB 100S
335-67-1	PFOA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 18:46	ASB 100S
1763-23-1	PFOS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 18:46	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Oos @ 156

Lab ID: E123001-11

Station ID: 11

Matrix: Surface Water

Date Collected: 7/11/12 13:15

CAS Number	Analyte	Results	Qualifiers	Units	MRLs	Prepared	Analyzed	Method
375-73-5	PFBS	0.087		ug/L	0.050	7/18/12 16:09	9/14/12 19:04	ASB 100S
335-76-2	PFDA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 19:04	ASB 100S
375-85-9	PFHpA	0.017 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 19:04	ASB 100S
307-24-4	PFHxA	0.031 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 19:04	ASB 100S
355-46-4	PFHxS	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 19:04	ASB 100S
375-95-1	PFNA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 19:04	ASB 100S
335-67-1	PFOA	0.033 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 19:04	ASB 100S
1763-23-1	PFOS	0.040 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 19:04	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Oot @ Salem

Lab ID: E123001-12

Station ID: 12

Matrix: Surface Water

Date Collected: 7/11/12 11:13

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.010	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 19:21	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:21	ASB 100S
375-85-9	PFHpA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:21	ASB 100S
307-24-4	PFHxA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:21	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:21	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:21	ASB 100S
335-67-1	PFOA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:21	ASB 100S
1763-23-1	PFOS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:21	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Oot @ 53

Lab ID: E123001-13

Station ID: 13

Matrix: Surface Water

Date Collected: 7/11/12 11:38

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.029	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 19:38	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:38	ASB 100S
375-85-9	PFHpA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:38	ASB 100S
307-24-4	PFHxA	0.023	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 19:38	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:38	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:38	ASB 100S
335-67-1	PFOA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:38	ASB 100S
1763-23-1	PFOS	0.045	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 19:38	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Oot @ 156

Lab ID: E123001-14

Station ID: 14

Matrix: Surface Water

Date Collected: 7/11/12 12:56

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.032	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 19:55	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:55	ASB 100S
375-85-9	PFHpA	0.021	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 19:55	ASB 100S
307-24-4	PFHxA	0.025	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 19:55	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:55	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 19:55	ASB 100S
335-67-1	PFOA	0.030	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 19:55	ASB 100S
1763-23-1	PFOS	0.053		ug/L	0.050	7/18/12 16:09	9/14/12 19:55	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Oos @ 136

Lab ID: E123001-15

Station ID: 15

Matrix: Surface Water

Date Collected: 7/11/12 12:38

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.088		ug/L	0.050	7/18/12 16:09	9/14/12 20:12	ASB 100S
335-76-2	PFDA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 20:12	ASB 100S
375-85-9	PFHpA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 20:12	ASB 100S
307-24-4	PFHxA	0.036 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 20:12	ASB 100S
355-46-4	PFHxS	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 20:12	ASB 100S
375-95-1	PFNA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 20:12	ASB 100S
335-67-1	PFOA	0.034 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 20:12	ASB 100S
1763-23-1	PFOS	0.055		ug/L	0.050	7/18/12 16:09	9/14/12 20:12	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Oos @ Reeves

Lab ID: E123001-16

Station ID: 16

Matrix: Surface Water

Date Collected: 7/11/12 13:35

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.089		ug/L	0.050	7/18/12 16:09	9/14/12 20:29	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 20:29	ASB 100S
375-85-9	PFHpA	0.015	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 20:29	ASB 100S
307-24-4	PFHxA	0.039	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 20:29	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 20:29	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 20:29	ASB 100S
335-67-1	PFOA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 20:29	ASB 100S
1763-23-1	PFOS	0.042	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 20:29	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Oos @ 140

Lab ID: E123001-17

Station ID: 17

Matrix: Surface Water

Date Collected: 7/11/12 14:04

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.090		ug/L	0.050	7/18/12 16:09	9/14/12 20:46	ASB 100S
335-76-2	PFDA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 20:46	ASB 100S
375-85-9	PFHpA	0.015 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 20:46	ASB 100S
307-24-4	PFHxA	0.038 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 20:46	ASB 100S
355-46-4	PFHxS	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 20:46	ASB 100S
375-95-1	PFNA	0.050 U		ug/L	0.050	7/18/12 16:09	9/14/12 20:46	ASB 100S
335-67-1	PFOA	0.023 J, Q-2		ug/L	0.050	7/18/12 16:09	9/14/12 20:46	ASB 100S
1763-23-1	PFOS	0.051		ug/L	0.050	7/18/12 16:09	9/14/12 20:46	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: OOS @ RSIDE

Lab ID: E123001-18

Station ID: 18

Matrix: Surface Water

Date Collected: 7/11/12 14:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.080		ug/L	0.050	7/18/12 16:09	9/14/12 21:03	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:03	ASB 100S
375-85-9	PFHpA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:03	ASB 100S
307-24-4	PFHxA	0.030	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 21:03	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:03	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:03	ASB 100S
335-67-1	PFOA	0.023	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 21:03	ASB 100S
1763-23-1	PFOS	0.048	J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 21:03	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Eto @ 53

Lab ID: E123001-19

Station ID: 19

Matrix: Surface Water

Date Collected: 7/11/12 15:13

C4S Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:20	ASB 100S
335-76-2	PFDA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:20	ASB 100S
375-85-9	PFHpA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:20	ASB 100S
307-24-4	PFHxA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:20	ASB 100S
355-46-4	PFHxS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:20	ASB 100S
375-95-1	PFNA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:20	ASB 100S
335-67-1	PFOA	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:20	ASB 100S
1763-23-1	PFOS	0.050	U	ug/L	0.050	7/18/12 16:09	9/14/12 21:20	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics

Project: 12-0360, Conasauga River PFC Study - GAEPD

Sample ID: Coo @ Lock

Lab ID: E123001-20

Station ID: 20

Matrix: Surface Water

Date Collected: 7/11/12 15:42

CAS Number	Analyte	Results - Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.042 J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 21:37	ASB 100S
335-76-2	PFDA	0.050 U	ug/L	0.050	7/18/12 16:09	9/14/12 21:37	ASB 100S
375-85-9	PFHpA	0.050 U	ug/L	0.050	7/18/12 16:09	9/14/12 21:37	ASB 100S
307-24-4	PFHxA	0.028 J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 21:37	ASB 100S
355-46-4	PFHxS	0.050 U	ug/L	0.050	7/18/12 16:09	9/14/12 21:37	ASB 100S
375-95-1	PFNA	0.050 U	ug/L	0.050	7/18/12 16:09	9/14/12 21:37	ASB 100S
335-67-1	PFOA	0.050 U	ug/L	0.050	7/18/12 16:09	9/14/12 21:37	ASB 100S
1763-23-1	PFOS	0.024 J, Q-2	ug/L	0.050	7/18/12 16:09	9/14/12 21:37	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SEDS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1207116 - S PFC

Blank (1207116-BLK1)

Prepared & Analyzed: 09/14/12

ASB 100S

Surrogate: M8C8	0.907		ug/L	0.83333		109	60-140			
Surrogate: M9C9	0.723		"	0.83333		86.8	60-140			
Surrogate: M9C10	0.841		"	0.83333		101	60-140			
Surrogate: M4S6	0.826		"	0.83333		99.1	60-140			
Surrogate: M8S8	0.869		"	0.83333		104	60-140			
PFHxA	U	0.050	"							U
PFHpA	U	0.050	"							U
PFOA	U	0.050	"							U
PFNA	U	0.050	"							U
PFDA	U	0.050	"							U
PFBS	U	0.050	"							U
PFHxS	U	0.050	"							U
PFOS	U	0.050	"							U

LCS (1207116-BS1)

Prepared & Analyzed: 09/14/12

ASB 100S

Surrogate: M8C8	0.894		ug/L	0.83333		107	60-140			
Surrogate: M9C9	0.776		"	0.83333		93.2	60-140			
Surrogate: M9C10	0.837		"	0.83333		100	60-140			
Surrogate: M4S6	0.762		"	0.83333		91.4	60-140			
Surrogate: M8S8	0.850		"	0.83333		102	60-140			
PFHxA	0.71289	0.050	"	0.67847		105	60-140			
PFHpA	0.73340	0.050	"	0.67373		109	60-140			
PFOA	0.80302	0.050	"	0.66099		121	60-140			
PFNA	0.67210	0.050	"	0.66788		101	60-140			
PFDA	0.72245	0.050	"	0.65927		110	60-140			
PFBS	0.72735	0.050	"	0.66788		109	60-140			
PFHxS	0.71477	0.050	"	0.67244		106	60-140			
PFOS	0.83906	0.050	"	0.65841		127	60-140			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1207116 - S PFC

Matrix Spike (1207116-MS1)

Source: E123001-10

Prepared & Analyzed: 09/14/12

ASB 100S

Surrogate: M8C8	0.862		ug/l	0.83333		103	60-140			
Surrogate: M9C9	0.729		"	0.83333		87.5	60-140			
Surrogate: M9C10	0.783		"	0.83333		94.0	60-140			
Surrogate: M4S6	0.825		"	0.83333		99.0	60-140			
Surrogate: M8S8	0.896		"	0.83333		108	60-140			
PFHxA	0.74881	0.050	"	0.67847	U	110	60-140			
PFHpA	0.74019	0.050	"	0.67373	U	110	60-140			
PFOA	0.81965	0.050	"	0.66099	U	124	60-140			
PFNA	0.63453	0.050	"	0.66788	U	95.0	60-140			
PFDA	0.69163	0.050	"	0.65927	U	105	60-140			
PFBS	0.79419	0.050	"	0.66788	0.079304	107	60-140			
PFHxS	0.75051	0.050	"	0.67244	U	112	60-140			
PFOS	0.91967	0.050	"	0.65841	U	140	60-140			

Matrix Spike Dup (1207116-MSD1)

Source: E123001-10

Prepared & Analyzed: 09/14/12

ASB 100S

Surrogate: M8C8	0.949		ug/l	0.83333		114	60-140			
Surrogate: M9C9	0.778		"	0.83333		93.4	60-140			
Surrogate: M9C10	0.792		"	0.83333		95.0	60-140			
Surrogate: M4S6	0.797		"	0.83333		95.6	60-140			
Surrogate: M8S8	0.895		"	0.83333		107	60-140			
PFHxA	0.71656	0.050	"	0.67847	U	106	60-140	4.40	30	
PFHpA	0.74821	0.050	"	0.67373	U	111	60-140	1.08	30	
PFOA	0.87121	0.050	"	0.66099	U	132	60-140	6.10	30	
PFNA	0.68827	0.050	"	0.66788	U	103	60-140	8.13	30	
PFDA	0.71706	0.050	"	0.65927	U	109	60-140	3.61	30	
PFBS	0.80625	0.050	"	0.66788	0.079304	109	60-140	1.51	30	
PFHxS	0.73741	0.050	"	0.67244	U	110	60-140	1.76	30	
PFOS	0.91628	0.050	"	0.65841	U	139	60-140	0.368	30	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1207116 - S PFC

MRL Verification (1207116-PS1)

Prepared & Analyzed: 09/14/12

MRL-2

ASB 100S

Surrogate: M8C8	0.843		ug/L	0.83333		101	60-140			
Surrogate: M9C9	0.726		"	0.83333		87.2	60-140			
Surrogate: M9C10	0.785		"	0.83333		94.2	60-140			
Surrogate: M4S6	0.788		"	0.83333		94.5	60-140			
Surrogate: M8S8	0.826		"	0.83333		99.2	60-140			
PFHxA	0.059217	0.050	"	0.050338		118	40-160			
PFHpA	0.058605	0.050	"	0.049987		117	40-160			
PFOA	0.047388	0.050	"	0.049041		96.6	40-160			Q-2, J
PFNA	0.036938	0.050	"	0.049552		74.5	40-160			Q-2, J
PFDA	0.056486	0.050	"	0.048913		115	40-160			
PFBS	0.060163	0.050	"	0.049552		121	40-160			
PFHxS	0.048909	0.050	"	0.049891		98.0	40-160			Q-2, J
PFOS	0.064442	0.050	"	0.048849		132	40-160			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 12-0360

Project: 12-0360, Conasauga River PFC Study - GAEPD - Reported by Sallie Hale

Notes and Definitions for QC Samples

- U The analyte was not detected at or above the reporting limit.
- J The identification of the analyte is acceptable; the reported value is an estimate.
- MRL-2 MRL verification for Non-Potable Water matrix
- Q-2 Result greater than MDL but less than MRL.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

August 24, 2016

4SESD-ASB

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 16-0451, North Georgia Surface Water PFC Study
Civil Enforcement

FROM: Floyd Wellborn
ASB Organic Chemistry Section Chief

THRU: Danny France, Chief
Analytical Support Branch

TO: Mike Neill

This data report is being reissued. Some or all of these results were previously reported. Please substitute the corrected results for those results previously reported. Please refer to the Report Narrative for more details.

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Analytical Support Branch's (ASB) Laboratory Operations and Quality Assurance Manual (ASB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the ASB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Section 5.2 of the ASB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:

Method Used:

Accreditations:

Semi Volatile Organics (SVOA)

PFCs

ASB 100S (Water)

ISO



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Report Narrative for Work Order: E162703 Analysis: SVOA

8/23/16 FW SVOA: These results have been re-reported after instrument maintenance, which resolved previous analysis quality control problems, and reanalysis within sample holding time. This report replaces the previous report E162703 SVOA FINAL 08 05 16 1651.

Sample Disposal Policy

Because of the laboratory's limited space for long term sample storage, our policy is to dispose of samples on a periodic schedule. Please note that within 60 days of this memo, the original samples and all sample extracts and/or sample digestates will be disposed of in accordance with applicable regulations. The 60-day sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time if you have a special project need. If you wish for the laboratory to hold samples beyond the 60-day period, please contact our Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov, and provide a reason for holding samples beyond 60 days



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

SAMPLES INCLUDED IN THIS REPORT

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
1084	E162703-01	Surface Water	6/19/16 09:20	6/27/16 9:50
1085	E162703-02	Surface Water	6/19/16 12:45	6/27/16 9:50
1086	E162703-03	Surface Water	6/19/16 13:25	6/27/16 9:50
1087	E162703-04	Surface Water	6/19/16 14:55	6/27/16 9:50
1088	E162703-05	Surface Water	6/19/16 15:53	6/27/16 9:50
1089	E162703-06	Surface Water	6/19/16 16:40	6/27/16 9:50
1090	E162703-07	Surface Water	6/20/16 08:45	6/27/16 9:50
1094	E162703-11	Surface Water	6/20/16 09:55	6/27/16 9:50
1095	E162703-12	Surface Water	6/20/16 10:55	6/27/16 9:50
1096	E162703-13	Surface Water	6/20/16 11:10	6/27/16 9:50
1097	E162703-14	Surface Water	6/21/16 09:15	6/27/16 9:50
1098	E162703-15	Surface Water	6/21/16 10:25	6/27/16 9:50
1099	E162703-16	Surface Water	6/21/16 11:05	6/27/16 9:50
1100	E162703-17	Surface Water	6/21/16 12:25	6/27/16 9:50
1101	E162703-18	Surface Water	6/21/16 14:05	6/27/16 9:50
1102	E162703-19	Surface Water	6/21/16 14:45	6/27/16 9:50
1103	E162703-20	Surface Water	6/21/16 15:10	6/27/16 9:50
1104	E162703-21	Surface Water	6/22/16 09:05	6/27/16 9:50
1105	E162703-22	Surface Water	6/22/16 10:05	6/27/16 9:50
1109	E162703-26	Surface Water	6/22/16 12:15	6/27/16 9:50
1110	E162703-27	Surface Water	6/22/16 12:50	6/27/16 9:50
1111	E162703-28	Surface Water	6/22/16 15:34	6/27/16 9:50
1112	E162703-29	Surface Water	6/23/16 08:55	6/27/16 9:50
1113	E162703-30	Surface Water	6/23/16 09:10	6/27/16 9:50
1114	E162703-31	Surface Water	6/23/16 13:40	6/27/16 9:50
1115	E162703-32	Surface Water	6/24/16 11:20	6/27/16 9:50
1116	E162703-33	Surface Water	6/24/16 12:10	6/27/16 9:50
1117	E162703-34	Surface Water	6/24/16 12:45	6/27/16 9:50
1118	E162703-35	Surface Water	6/24/16 13:15	6/27/16 9:50
1119	E162703-36	Surface Water	6/24/16 13:30	6/27/16 9:50
1120	E162703-37	Surface Water	6/24/16 13:45	6/27/16 9:50
1121	E162703-38	Surface Water	6/24/16 14:35	6/27/16 9:50
1122	E162703-39	Surface Water	6/24/16 15:05	6/27/16 9:50



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
O-2	Result greater than MDL but less than MRL.
QM-3	Matrix Spike Precision outside method control limits
QR-1	MRL verification recovery less than lower control limits.

ACRONYMS AND ABBREVIATIONS

CAS Chemical Abstracts Service

Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.

MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.

MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.

TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO The test, if analyzed after June 26, 2012, is accredited under the EPA Region 4 ASB's ISO/IEC 17025 accreditation issued by ANSI-ASQ National Accreditation Board/ACLASS. Refer to certificate and scope of accreditation AT-1691.

NR The EPA Region 4 Laboratory has not requested accreditation for this test.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1084

Lab ID: E162703-01

Station ID: RV 14 4438

Matrix: Surface Water

Date Collected: 6/19/16 9:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:17	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:17	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:17	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:17	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:17	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:17	ASB 100S
335-67-1	PFOA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:17	ASB 100S
1763-23-1	PFOS	0.015	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 0:17	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1085

Lab ID: E162703-02

Station ID: RV 14 16663

Matrix: Surface Water

Date Collected: 6/19/16 12:45

C4S Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:35	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 0:35	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:35	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 0:35	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:35	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 0:35	ASB 100S
335-67-1	PFOA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 0:35	ASB 100S
1763-23-1	PFOS	0.017	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 0:35	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1086

Lab ID: E162703-03

Station ID: RV 14 16664

Matrix: Surface Water

Date Collected: 6/19/16 13:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.081		ug/L	0.026	7/01/16 10:46	8/17/16 0:52	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:52	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:52	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:52	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 0:52	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:52	ASB 100S
335-67-1	PFOA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 0:52	ASB 100S
1763-23-1	PFOS	0.030		ug/L	0.026	7/01/16 10:46	8/17/16 0:52	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1087

Lab ID: E162703-04

Station ID: RV 14 4457

Matrix: Surface Water

Date Collected: 6/19/16 14:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.037		ug/L	0.026	7/01/16 10:46	8/17/16 1:09	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 1:09	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 1:09	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 1:09	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 1:09	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 1:09	ASB 100S
335-67-1	PFOA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 1:09	ASB 100S
1763-23-1	PFOS	0.019	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 1:09	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1088

Lab ID: E162703-05

Station ID: RV 14 16665

Matrix: Surface Water

Date Collected: 6/19/16 15:53

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.53		ug/L	0.026	7/01/16 10:46	8/17/16 1:26	ASB 100S
335-76-2	PFDA	0.033	J, Q-2	ug/L	0.045	7/01/16 10:46	8/17/16 1:26	ASB 100S
375-85-9	PFHpA	0.11		ug/L	0.026	7/01/16 10:46	8/17/16 1:26	ASB 100S
307-24-4	PFHxA	0.17		ug/L	0.045	7/01/16 10:46	8/17/16 1:26	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 1:26	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 1:26	ASB 100S
335-67-1	PFOA	0.15		ug/L	0.045	7/01/16 10:46	8/17/16 1:26	ASB 100S
1763-23-1	PFOS	0.32		ug/L	0.026	7/01/16 10:46	8/17/16 1:26	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1089

Lab ID: E162703-06

Station ID: RV 14 16666

Matrix: Surface Water

Date Collected: 6/19/16 16:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	1.6		ug/L	0.26	7/01/16 10:46	8/17/16 1:43	ASB 100S
335-76-2	PFDA	0.029	J, Q-2	ug/L	0.045	7/01/16 10:46	8/17/16 5:07	ASB 100S
375-85-9	PFHpA	0.16		ug/L	0.026	7/01/16 10:46	8/17/16 5:07	ASB 100S
307-24-4	PFHxA	0.26		ug/L	0.045	7/01/16 10:46	8/17/16 5:07	ASB 100S
355-46-4	PFHxS	0.060		ug/L	0.026	7/01/16 10:46	8/17/16 5:07	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 5:07	ASB 100S
335-67-1	PFOA	0.39		ug/L	0.045	7/01/16 10:46	8/17/16 5:07	ASB 100S
1763-23-1	PFOS	0.43		ug/L	0.026	7/01/16 10:46	8/17/16 5:07	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1090

Lab ID: E162703-07

Station ID: RV 14 4455

Matrix: Surface Water

Date Collected: 6/20/16 8:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.23		ug/L	0.026	7/01/16 10:46	8/17/16 2:00	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 2:00	ASB 100S
375-85-9	PFHpA	0.029		ug/L	0.026	7/01/16 10:46	8/17/16 2:00	ASB 100S
307-24-4	PFHxA	0.062		ug/L	0.045	7/01/16 10:46	8/17/16 2:00	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 2:00	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 2:00	ASB 100S
335-67-1	PFOA	0.045	J, QM-3	ug/L	0.045	7/01/16 10:46	8/17/16 2:00	ASB 100S
1763-23-1	PFOS	0.10		ug/L	0.026	7/01/16 10:46	8/17/16 2:00	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1094

Lab ID: E162703-11

Station ID: RV 14 4458

Matrix: Surface Water

Date Collected: 6/20/16 9:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.28		ug/L	0.026	7/01/16 10:46	8/17/16 2:17	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 2:17	ASB 100S
375-85-9	PFHpA	0.057		ug/L	0.026	7/01/16 10:46	8/17/16 2:17	ASB 100S
307-24-4	PFHxA	0.076		ug/L	0.045	7/01/16 10:46	8/17/16 2:17	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 2:17	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 2:17	ASB 100S
335-67-1	PFOA	0.096		ug/L	0.045	7/01/16 10:46	8/17/16 2:17	ASB 100S
1763-23-1	PFOS	0.18		ug/L	0.026	7/01/16 10:46	8/17/16 2:17	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1095

Lab ID: E162703-12

Station ID: RV 14 16667

Matrix: Surface Water

Date Collected: 6/20/16 10:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.38		ug/L	0.026	7/01/16 10:46	8/17/16 2:34	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 2:34	ASB 100S
375-85-9	PFHpA	0.074		ug/L	0.026	7/01/16 10:46	8/17/16 2:34	ASB 100S
307-24-4	PFHxA	0.12		ug/L	0.046	7/01/16 10:46	8/17/16 2:34	ASB 100S
355-46-4	PFHxS	0.018	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 2:34	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 2:34	ASB 100S
335-67-1	PFOA	0.15		ug/L	0.046	7/01/16 10:46	8/17/16 2:34	ASB 100S
1763-23-1	PFOS	0.15		ug/L	0.026	7/01/16 10:46	8/17/16 2:34	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1096

Lab ID: E162703-13

Station ID: POSSIBLE RUNOFF FROM LAS

Matrix: Surface Water

Date Collected: 6/20/16 11:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	7.5		ug/L	0.26	7/01/16 10:46	8/17/16 2:51	ASB 100S
335-76-2	PFDA	0.31		ug/L	0.045	7/01/16 10:46	8/17/16 5:24	ASB 100S
375-85-9	PFHpA	2.7		ug/L	0.26	7/01/16 10:46	8/17/16 2:51	ASB 100S
307-24-4	PFHxA	4.8		ug/L	0.45	7/01/16 10:46	8/17/16 2:51	ASB 100S
355-46-4	PFHxS	0.085		ug/L	0.026	7/01/16 10:46	8/17/16 5:24	ASB 100S
375-95-1	PFNA	0.13		ug/L	0.045	7/01/16 10:46	8/17/16 5:24	ASB 100S
335-67-1	PFOA	0.88		ug/L	0.045	7/01/16 10:46	8/17/16 5:24	ASB 100S
1763-23-1	PFOS	2.3		ug/L	0.26	7/01/16 10:46	8/17/16 2:51	ASB 100S



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Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1097

Lab ID: E162703-14

Station ID: RV 14 4460

Matrix: Surface Water

Date Collected: 6/21/16 9:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.36		ug/L	0.026	7/01/16 10:46	8/17/16 3:08	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 3:08	ASB 100S
375-85-9	PFHpA	0.067		ug/L	0.026	7/01/16 10:46	8/17/16 3:08	ASB 100S
307-24-4	PFHxA	0.14		ug/L	0.045	7/01/16 10:46	8/17/16 3:08	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 3:08	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 3:08	ASB 100S
335-67-1	PFOA	0.15		ug/L	0.045	7/01/16 10:46	8/17/16 3:08	ASB 100S
1763-23-1	PFOS	0.15		ug/L	0.026	7/01/16 10:46	8/17/16 3:08	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1098

Lab ID: E162703-15

Station ID: RV 14 16671

Matrix: Surface Water

Date Collected: 6/21/16 10:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	7.6		ug/L	0.26	7/01/16 10:46	8/17/16 3:25	ASB 100S
335-76-2	PFDA	0.21		ug/L	0.045	7/01/16 10:46	8/17/16 5:41	ASB 100S
375-85-9	PFHpA	1.4		ug/L	0.26	7/01/16 10:46	8/17/16 3:25	ASB 100S
307-24-4	PFHxA	2.7		ug/L	0.45	7/01/16 10:46	8/17/16 3:25	ASB 100S
355-46-4	PFHxS	0.077		ug/L	0.026	7/01/16 10:46	8/17/16 5:41	ASB 100S
375-95-1	PFNA	0.11		ug/L	0.045	7/01/16 10:46	8/17/16 5:41	ASB 100S
335-67-1	PFOA	0.63		ug/L	0.045	7/01/16 10:46	8/17/16 5:41	ASB 100S
1763-23-1	PFOS	1.2		ug/L	0.26	7/01/16 10:46	8/17/16 3:25	ASB 100S



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Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1099

Lab ID: E162703-16

Station ID: PO 14 2439

Matrix: Surface Water

Date Collected: 6/21/16 11:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.14		ug/L	0.026	7/01/16 10:46	8/17/16 3:42	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 3:42	ASB 100S
375-85-9	PFHpA	0.034		ug/L	0.026	7/01/16 10:46	8/17/16 3:42	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 3:42	ASB 100S
355-46-4	PFHxS	0.020	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 3:42	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 3:42	ASB 100S
335-67-1	PFOA	0.052		ug/L	0.045	7/01/16 10:46	8/17/16 3:42	ASB 100S
1763-23-1	PFOS	0.083		ug/L	0.026	7/01/16 10:46	8/17/16 3:42	ASB 100S



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Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1100

Lab ID: E162703-17

Station ID: RV 14 4463

Matrix: Surface Water

Date Collected: 6/21/16 12:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.33		ug/L	0.026	7/01/16 10:46	8/17/16 3:59	ASB 100S
335-76-2	PFDA	0.022	J, Q-2	ug/L	0.046	7/01/16 10:46	8/17/16 3:59	ASB 100S
375-85-9	PFHpA	0.069		ug/L	0.026	7/01/16 10:46	8/17/16 3:59	ASB 100S
307-24-4	PFHxA	0.11		ug/L	0.046	7/01/16 10:46	8/17/16 3:59	ASB 100S
355-46-4	PFHxS	0.022	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 3:59	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 3:59	ASB 100S
335-67-1	PFOA	0.16		ug/L	0.046	7/01/16 10:46	8/17/16 3:59	ASB 100S
1763-23-1	PFOS	0.13		ug/L	0.026	7/01/16 10:46	8/17/16 3:59	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1101

Lab ID: E162703-18

Station ID: RV 14 16672

Matrix: Surface Water

Date Collected: 6/21/16 14:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	5.7		ug/L	0.26	7/01/16 10:46	8/17/16 4:16	ASB 100S
335-76-2	PFDA	0.48		ug/L	0.045	7/01/16 10:46	8/17/16 5:58	ASB 100S
375-85-9	PFHpA	0.95		ug/L	0.026	7/01/16 10:46	8/17/16 5:58	ASB 100S
307-24-4	PFHxA	1.3		ug/L	0.45	7/01/16 10:46	8/17/16 4:16	ASB 100S
355-46-4	PFHxS	0.11		ug/L	0.026	7/01/16 10:46	8/17/16 5:58	ASB 100S
375-95-1	PFNA	0.13		ug/L	0.045	7/01/16 10:46	8/17/16 5:58	ASB 100S
335-67-1	PFOA	0.60		ug/L	0.045	7/01/16 10:46	8/17/16 5:58	ASB 100S
1763-23-1	PFOS	2.1		ug/L	0.26	7/01/16 10:46	8/17/16 4:16	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1102

Lab ID: E162703-19

Station ID: RV 14 16673

Matrix: Surface Water

Date Collected: 6/21/16 14:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.35		ug/L	0.026	7/01/16 10:46	8/17/16 4:33	ASB 100S
335-76-2	PFDA	0.024	J, Q-2	ug/L	0.046	7/01/16 10:46	8/17/16 4:33	ASB 100S
375-85-9	PFHpA	0.081		ug/L	0.026	7/01/16 10:46	8/17/16 4:33	ASB 100S
307-24-4	PFHxA	0.098		ug/L	0.046	7/01/16 10:46	8/17/16 4:33	ASB 100S
355-46-4	PFHxS	0.018	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 4:33	ASB 100S
375-95-1	PFNA	0.046	U	ug/L	0.046	7/01/16 10:46	8/17/16 4:33	ASB 100S
335-67-1	PFOA	0.14		ug/L	0.046	7/01/16 10:46	8/17/16 4:33	ASB 100S
1763-23-1	PFOS	0.25		ug/L	0.026	7/01/16 10:46	8/17/16 4:33	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1103

Lab ID: E162703-20

Station ID: RV 14 4419

Matrix: Surface Water

Date Collected: 6/21/16 15:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.20		ug/L	0.026	7/01/16 10:46	8/17/16 4:50	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 4:50	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 4:50	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 4:50	ASB 100S
353-46-4	PFHxS	0.026	U	ug/L	0.026	7/01/16 10:46	8/17/16 4:50	ASB 100S
375-95-1	PFNA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 4:50	ASB 100S
335-67-1	PFOA	0.045	U	ug/L	0.045	7/01/16 10:46	8/17/16 4:50	ASB 100S
1763-23-1	PFOS	0.013	J, Q-2	ug/L	0.026	7/01/16 10:46	8/17/16 4:50	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1104

Lab ID: E162703-21

Station ID: RV 14 16674

Matrix: Surface Water

Date Collected: 6/22/16 9:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 13:44	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 13:44	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 13:44	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 13:44	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 13:44	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 13:44	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 13:44	ASB 100S
1763-23-1	PFOS	0.085		ug/L	0.026	7/05/16 14:00	8/16/16 13:44	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1105

Lab ID: E162703-22

Station ID: RV 14 4420

Matrix: Surface Water

Date Collected: 6/22/16 10:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 14:01	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 14:01	ASB 100S
375-85-9	PFHpA	0.019	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 14:01	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 14:01	ASB 100S
365-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:01	ASB 100S
375-95-1	PFNA	0.046	U, J, QR-1	ug/L	0.046	7/05/16 14:00	8/16/16 14:01	ASB 100S
335-67-1	PFOA	0.026		ug/L	0.026	7/05/16 14:00	8/16/16 14:01	ASB 100S
1763-23-1	PFOS	0.061		ug/L	0.026	7/05/16 14:00	8/16/16 14:01	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1109

Lab ID: E162703-26

Station ID: RV 14 4423

Matrix: Surface Water

Date Collected: 6/22/16 12:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.23		ug/L	0.026	7/05/16 14:00	8/16/16 14:18	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 14:18	ASB 100S
375-85-9	PFHpA	0.020	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 14:18	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 14:18	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:18	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 14:18	ASB 100S
335-67-1	PFOA	0.026		ug/L	0.026	7/05/16 14:00	8/16/16 14:18	ASB 100S
1763-23-1	PFOS	0.059		ug/L	0.026	7/05/16 14:00	8/16/16 14:18	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1110

Lab ID: E162703-27

Station ID: RV 14 16676

Matrix: Surface Water

Date Collected: 6/22/16 12:50

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.029		ug/L	0.026	7/05/16 14:00	8/16/16 14:35	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 14:35	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:35	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 14:35	ASB 100S
335-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:35	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 14:35	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:35	ASB 100S
1763-23-1	PFOS	0.024	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 14:35	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1111

Lab ID: E162703-28

Station ID: RV 14 4426

Matrix: Surface Water

Date Collected: 6/22/16 15:34

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 14:52	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 14:52	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:52	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 14:52	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 14:52	ASB 100S
375-95-1	PFNA	0.046	U, J, QR-1	ug/L	0.046	7/05/16 14:00	8/16/16 14:52	ASB 100S
335-67-1	PFOA	0.018	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 14:52	ASB 100S
1763-23-1	PFOS	0.058		ug/L	0.026	7/05/16 14:00	8/16/16 14:52	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1112

Lab ID: E162703-29

Station ID: RV 14 4427

Matrix: Surface Water

Date Collected: 6/23/16 8:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 15:09	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:09	ASB 100S
375-85-9	PFHpA	0.019	I, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 15:09	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:09	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:09	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 15:09	ASB 100S
335-67-1	PFOA	0.028		ug/L	0.026	7/05/16 14:00	8/16/16 15:09	ASB 100S
1763-23-1	PFOS	0.057		ug/L	0.026	7/05/16 14:00	8/16/16 15:09	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1113

Lab ID: E162703-30

Station ID: RV 14 16679

Matrix: Surface Water

Date Collected: 6/23/16 9:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:26	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:26	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:26	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:26	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:26	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 15:26	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:26	ASB 100S
1763-23-1	PFOS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:26	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1114

Lab ID: E162703-31

Station ID: RV 14 4430

Matrix: Surface Water

Date Collected: 6/23/16 13:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 15:43	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:43	ASB 100S
375-85-9	PFHpA	0.018	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 15:43	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 15:43	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:43	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 15:43	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 15:43	ASB 100S
1763-23-1	PFOS	0.050		ug/L	0.026	7/05/16 14:00	8/16/16 15:43	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1115

Lab ID: E162703-32

Station ID: RV 14 4533

Matrix: Surface Water

Date Collected: 6/24/16 11:20

CAS Number	Analyte	Results Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.23	ug/L	0.026	7/05/16 14:00	8/16/16 16:00	ASB 100S
335-76-2	PFDA	0.045 U	ug/L	0.045	7/05/16 14:00	8/16/16 16:00	ASB 100S
375-85-9	PFHxA	0.019 J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 16:00	ASB 100S
307-24-4	PFHxA	0.037 J, Q-2	ug/L	0.045	7/05/16 14:00	8/16/16 16:00	ASB 100S
355-46-4	PFHxS	0.026 U	ug/L	0.026	7/05/16 14:00	8/16/16 16:00	ASB 100S
375-95-1	PFNA	0.045 U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 16:00	ASB 100S
335-67-1	PFOA	0.021 J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 16:00	ASB 100S
1763-23-1	PFOS	0.076	ug/L	0.026	7/05/16 14:00	8/16/16 16:00	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1116

Lab ID: E162703-33

Station ID: RV 14 16685

Matrix: Surface Water

Date Collected: 6/24/16 12:10

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.041		ug/L	0.026	7/05/16 14:00	8/16/16 16:17	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 16:17	ASB 100S
375-83-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:17	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 16:17	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:17	ASB 100S
375-95-1	PFNA	0.046	U, J, QR-I	ug/L	0.046	7/05/16 14:00	8/16/16 16:17	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:17	ASB 100S
1763-23-1	PFOS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:17	ASB 100S



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1117

Lab ID: E162703-34

Station ID: RV 14 4534

Matrix: Surface Water

Date Collected: 6/24/16 12:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.24		ug/L	0.026	7/05/16 14:00	8/16/16 16:34	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 16:34	ASB 100S
375-85-9	PFHpA	0.019	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 16:34	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 16:34	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:34	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 16:34	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:34	ASB 100S
1763-23-1	PFOS	0.059		ug/L	0.026	7/05/16 14:00	8/16/16 16:34	ASB 100S



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Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1118

Lab ID: E162703-35

Station ID: RV 14 16686

Matrix: Surface Water

Date Collected: 6/24/16 13:15

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.22		ug/L	0.026	7/05/16 14:00	8/16/16 16:51	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 16:51	ASB 100S
375-85-9	PFHpA	0.017	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 16:51	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 16:51	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 16:51	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 16:51	ASB 100S
335-67-1	PFOA	0.020	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 16:51	ASB 100S
1763-23-1	PFOS	0.066		ug/L	0.026	7/05/16 14:00	8/16/16 16:51	ASB 100S



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Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1119

Lab ID: E162703-36

Station ID: RV 14 16687

Matrix: Surface Water

Date Collected: 6/24/16 13:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:08	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 17:08	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:08	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 17:08	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:08	ASB 100S
375-95-1	PFNA	0.046	U, J, QR-1	ug/L	0.046	7/05/16 14:00	8/16/16 17:08	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:08	ASB 100S
1763-23-1	PFOS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:08	ASB 100S



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1120

Lab ID: E162703-37

Station ID: RV 14 4599

Matrix: Surface Water

Date Collected: 6/24/16 13:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analysed	Method
375-73-5	PFBS	0.19		ug/L	0.026	7/05/16 14:00	8/16/16 17:25	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 17:25	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:25	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 17:25	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:25	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 17:25	ASB 100S
335-67-1	PFOA	0.022	J, Q-2	ug/L	0.026	7/05/16 14:00	8/16/16 17:25	ASB 100S
1763-23-1	PFOS	0.045		ug/L	0.026	7/05/16 14:00	8/16/16 17:25	ASB 100S



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D.A.R.T. Id: 16-0451

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Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1121

Lab ID: E162703-38

Station ID: RV 14 4604

Matrix: Surface Water

Date Collected: 6/24/16 14:35

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.13		ug/L	0.026	7/05/16 14:00	8/16/16 17:42	ASB 100S
335-76-2	PFDA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 17:42	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:42	ASB 100S
307-24-4	PFHxA	0.046	U	ug/L	0.046	7/05/16 14:00	8/16/16 17:42	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:42	ASB 100S
375-95-1	PFNA	0.046	U, J, QR-1	ug/L	0.046	7/05/16 14:00	8/16/16 17:42	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:42	ASB 100S
1763-23-1	PFOS	0.034		ug/L	0.026	7/05/16 14:00	8/16/16 17:42	ASB 100S



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D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics

Project: 16-0451, North Georgia Surface Water PFC Study

Sample ID: 1122

Lab ID: E162703-39

Station ID: RV 14 4614

Matrix: Surface Water

Date Collected: 6/24/16 15:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
375-73-5	PFBS	0.11		ug/L	0.026	7/05/16 14:00	8/16/16 17:59	ASB 100S
335-76-2	PFDA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 17:59	ASB 100S
375-85-9	PFHpA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:59	ASB 100S
307-24-4	PFHxA	0.045	U	ug/L	0.045	7/05/16 14:00	8/16/16 17:59	ASB 100S
355-46-4	PFHxS	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:59	ASB 100S
375-95-1	PFNA	0.045	U, J, QR-1	ug/L	0.045	7/05/16 14:00	8/16/16 17:59	ASB 100S
335-67-1	PFOA	0.026	U	ug/L	0.026	7/05/16 14:00	8/16/16 17:59	ASB 100S
1763-23-1	PFOS	0.033		ug/L	0.026	7/05/16 14:00	8/16/16 17:59	ASB 100S



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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SED

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1608048 - S PFC

Blank (1608048-BLK1)

Prepared: 07/22/16 Analyzed: 08/17/16

ASB 100S

PFBS	U	0.026	ug/L							U
PFDA	U	0.046	"							U
PFHpA	U	0.026	"							U
PFHxA	U	0.046	"							U
PFHxS	U	0.026	"							U
PFNA	U	0.046	"							U
PFOA	U	0.026	"							U
PFOS	U	0.026	"							U

LCS (1608048-BS1)

Prepared: 07/22/16 Analyzed: 08/16/16

ASB 100S

PFBS	0.65658	0.026	ug/L	0.58119		113	70-130
PFDA	0.59335	0.045	"	0.58719		101	70-130
PFHpA	0.65433	0.026	"	0.59312		110	70-130
PFHxA	0.64497	0.045	"	0.58142		111	70-130
PFHxS	0.67405	0.026	"	0.59031		114	70-130
PFNA	0.70018	0.045	"	0.59251		118	70-130
PFOA	0.70019	0.026	"	0.58644		119	70-130
PFOS	0.57502	0.026	"	0.59312		96.9	70-130

Matrix Spike (1608048-MS1)

Source: E162703-22RE1

Prepared: 07/05/16 Analyzed: 08/16/16

ASB 100S

PFBS	0.79533	0.026	ug/L	0.51114	0.22297	112	70-130
PFDA	0.55524	0.046	"	0.51642	U	108	70-130
PFHpA	0.63288	0.026	"	0.52163	0.019058	118	70-130
PFHxA	0.55827	0.046	"	0.51134	U	109	70-130
PFHxS	0.56703	0.026	"	0.51916	U	109	70-130
PFNA	0.50492	0.046	"	0.52109	U	96.9	70-130
PFOA	0.68933	0.026	"	0.51575	0.026110	129	70-130
PFOS	0.53731	0.026	"	0.52163	0.061153	91.3	70-130



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SEDS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1608048 - S PFC

Matrix Spike Dup (1608048-MSD1)

Source: E162703-22RE1

Prepared: 07/05/16 Analyzed: 08/16/16

ASB 100S

PFBS	0.73412	0.026	ug/L	0.52821	0.22297	96.8	70-130	8.00	20	
PFDA	0.59107	0.045	"	0.53366	U	111	70-130	6.25	20	
PFHpA	0.57420	0.026	"	0.53904	0.019058	103	70-130	9.72	20	
PFHxA	0.58121	0.045	"	0.52841	U	110	70-130	4.03	20	
PFHxS	0.56855	0.026	"	0.53649	U	106	70-130	0.268	20	
PFNA	0.54048	0.045	"	0.53849	U	100	70-130	6.80	20	
PFOA	0.60959	0.026	"	0.53297	0.026110	109	70-130	12.3	20	
PFOS	0.58729	0.026	"	0.53904	0.061153	97.6	70-130	8.89	20	

MRL Verification (1608048-PS1)

Prepared: 07/22/16 Analyzed: 08/16/16

ASB 100S

PFBS	0.034906	0.026	ug/L	0.025990		134	50-150			MRL-2
PFHpA	0.022948	0.026	"	0.026524		86.5	50-150			Q-2, MRL-2, J
PFHxS	0.022851	0.026	"	0.026398		86.6	50-150			Q-2, MRL-2, J
PFOA	0.022630	0.026	"	0.026225		86.3	50-150			Q-2, MRL-2, J
PFOS	0.022213	0.026	"	0.026524		83.7	50-150			Q-2, MRL-2, J

MRL Verification (1608048-PS2)

Prepared: 07/22/16 Analyzed: 08/16/16

ASB 100S

PFDA	0.030647	0.045	ug/L	0.045954		66.7	50-150			Q-2, MRL-2, J
PFHxA	0.033641	0.045	"	0.045502		73.9	50-150			Q-2, MRL-2, J
PFNA	0.019783	0.045	"	0.046370		42.7	50-150			Q-2, MRL-2, QR-1, U

Batch 1608086 - S PFC

Blank (1608086-BLK1)

Prepared: 07/22/16 Analyzed: 08/16/16

ASB 100S

PFBS	U	0.026	ug/L							U
PFDA	U	0.046	"							U
PFHpA	U	0.026	"							U
PFHxA	U	0.046	"							U
PFHxS	U	0.026	"							U
PFNA	U	0.046	"							U



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1608086 - S PFC

Blank (1608086-BLK1)

Prepared: 07/22/16 Analyzed: 08/16/16

PFOA	U	0.046	ug/L							U
PFOS	U	0.026	"							U

LCS (1608086-BS1)

Prepared: 07/22/16 Analyzed: 08/16/16

ASB 100S

PFBS	0.63338	0.026	ug/L	0.58119		109	70-130			
PFDA	0.70243	0.045	"	0.58719		120	70-130			
PFHpA	0.65147	0.026	"	0.59312		110	70-130			
PFHxA	0.64846	0.045	"	0.58142		112	70-130			
PFHxS	0.70746	0.026	"	0.59031		120	70-130			
PFNA	0.66944	0.045	"	0.59251		113	70-130			
PFOA	0.74758	0.045	"	0.58644		127	70-130			
PFOS	0.53952	0.026	"	0.59312		91.0	70-130			

Matrix Spike (1608086-MS1)

Source: E162703-07RE1

Prepared: 07/01/16 Analyzed: 08/17/16

ASB 100S

PFBS	0.79835	0.026	ug/L	0.56729	0.22637	101	70-130			
PFDA	0.63056	0.046	"	0.57315	U	110	70-130			
PFHpA	0.65272	0.026	"	0.57893	0.029294	108	70-130			
PFHxA	0.68616	0.046	"	0.56751	0.061840	110	70-130			
PFHxS	0.70955	0.026	"	0.57619	U	123	70-130			
PFNA	0.59778	0.046	"	0.57834	U	103	70-130			
PFOA	0.77084	0.046	"	0.57241	0.045425	127	70-130			
PFOS	0.57303	0.026	"	0.57893	0.10354	81.1	70-130			

Matrix Spike Dup (1608086-MSD1)

Source: E162703-07RE1

Prepared: 07/01/16 Analyzed: 08/17/16

ASB 100S

PFBS	0.75008	0.026	ug/L	0.52112	0.22637	100	70-130	6.23	20	
PFDA	0.59617	0.046	"	0.52650	U	113	70-130	5.61	20	
PFHpA	0.60333	0.026	"	0.53181	0.029294	108	70-130	7.86	20	
PFHxA	0.64053	0.046	"	0.52132	0.061840	111	70-130	6.88	20	
PFHxS	0.62295	0.026	"	0.52929	U	118	70-130	13.0	20	
PFNA	0.56766	0.046	"	0.53127	U	107	70-130	5.17	20	
PFOA	0.61730	0.046	"	0.52582	0.045425	109	70-130	22.1	20	QM-3
PFOS	0.59201	0.026	"	0.53181	0.10354	91.9	70-130	3.26	20	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch 1608086 - S PFC

MRL Verification (1608086-PS1)

Prepared: 07/22/16 Analyzed: 08/16/16

ASB 100S

PFBS	0.032029	0.026	ug/L	0.025990		123	50-150			MRL-2
PFHpA	0.023125	0.026	"	0.026524		87.2	50-150			Q-2, MRL-2, J
PFHxS	0.033137	0.026	"	0.026398		126	50-150			MRL-2
PFOS	0.026998	0.026	"	0.026524		102	50-150			MRL-2

MRL Verification (1608086-PS2)

Prepared: 07/22/16 Analyzed: 08/20/16

ASB 100S

PFDA	0.039014	0.045	ug/L	0.045954		84.9	50-150			Q-2, MRL-2, J
PFHxA	0.031326	0.045	"	0.045502		68.8	50-150			Q-2, MRL-2, J
PFNA	0.024746	0.045	"	0.046370		53.4	50-150			Q-2, MRL-2, U
PFOA	0.034808	0.045	"	0.045894		75.8	50-150			Q-2, MRL-2, J



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division

980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0451

Project: 16-0451, North Georgia Surface Water PFC Study - Reported by Floyd Wellborn

Notes and Definitions for QC Samples

- U The analyte was not detected at or above the reporting limit.
- J The identification of the analyte is acceptable; the reported value is an estimate.
- MRL-2 MRL verification for Non-Potable Water matrix
- Q-2 Result greater than MDL but less than MRL.
- QM-3 Matrix Spike Precision outside method control limits
- QR-1 MRL verification recovery less than lower control limits.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4

Science and Ecosystem Support Division
Enforcement and Investigations Branch
980 College Station Road
Athens, Georgia 30605-2720

September 17, 2009

4SESD-EIB

MEMORANDUM

SUBJECT: Dalton Utilities Private Well Sampling - Field Systems Audit
Dalton, Georgia 30722
SESD Project # 09-0713

FROM: Mike Neill, Acting Chief *M. Neill*
Enforcement Section

THRU: Archie Lee, Chief *Archie Lee for*
Enforcement and Investigations Branch

TO: Gail Mitchell, Deputy Director
Water Protection Division

Attached is the Science and Ecosystems Support Division's (SESD's) Field Systems Audit Checklist for the Dalton Utilities Private Well Sampling that was conducted near the Dalton Utilities land application system (LAS) facility in Dalton, GA on September 9, 2009. The Field Systems Audit was conducted by Mike Neill, SESD. Dalton Utilities employees, Mr. David Oxford and Mr. David White, conducted the private well survey and sampling. Ms Dena Haverland from Dalton Utilities was also present during the audit.

Dalton Utilities (DU) answered SESD's questions, and information requested as part of the audit was made available for review. SESD observed DU samplers collecting three potable/residence well samples (79, 80 and 81) during the audit. DU potable well sampling procedures were acceptable.

DU is conducting private well surveying and sampling near its LAS facility because of elevated levels of perfluorinated compounds (PFCs) detected in its sewage sludge, composted sewage sludge, monitoring wells and downstream in the Conasagua River. DU is conducting a well survey to identify any private wells that are used as the primary source of drinking water at a distance of 1.0 mile extending from the outer boundary of the LAS.

During the audit, the DU staff were conducting private well surveys on Fox Bridge Road in Murray County, GA. They were using municipal and county records, water company records and the Polk Directory to search for evidence if a residence was using private well water or municipal water. The DU employees would verify their records by observing water

meters, pump houses and/or verbal confirmations from the residents. When a resident was not available, a small vial was filled from the outside tap to field test for the presence of chlorine to determine if the water is treated by a municipality. Nineteen residences were surveyed during the audit.

If you have any questions concerning the field system audit, please call me at (706) 355-8614 or neill.mike@epa.gov.

Attachment

United States Environmental Protection Agency
Region 4

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720



**HAZARDOUS WASTE SITE
FIELD SYSTEMS AUDIT (OVERVIEW) CHECKLIST**

PROJECT (SITE) NAME: Dalton Utilities Private Well Sampling
PROJECT (SITE) LOCATION: Dalton, Georgia
SESD PROJECT ID NUMBER: 09-0713

Auditor: Mike Neill

Date: September 9, 2009

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**HAZARDOUS WASTE SITE
FIELD SYSTEMS AUDIT CHECKLIST**

Facility/Site Name: Dalton Utilities Private Well Sampling						
Address: Dalton, GA						
SESD Project ID No.: 09-0713				EPA ID No.:		
Audit Team: <u>Mike Neill</u>				Date: September 9, 2009		
Field project leader for organization being audited: Dena Haverland						
Affiliation: Dalton Utilities				Phone No.: 706-529-1010		
Address: 1200 VD Parrott Jr. Parkway, PO Box 869, Dalton, GA						
Other Sampling Personnel and Affiliation: <u>David Oxford, Dalton Utilities 706-529-1204</u> . <u>David White, Dalton Utilities 706-529-1241</u> .						
Type of investigation/study? Private Well Sampling						
QAPP or study plan issued? Dalton Utilities Drinking Water Well Survey Protocol				Date issued: NA		
QAPP or study plan reviewed by the SESD? <u>Comments:</u> No				Acceptable?	Yes	No
Was QAPP or study plan followed? <u>Comments:</u> Modified based on EPA's comments.						
Was a safety plan prepared for the study? <u>Comments:</u> No. Dalton Utilities has Environmental Health & Safety SOPS for plant operations.						
Was the safety plan adequate? <u>Comments:</u> Not Applicable (NA)						
Was the safety plan followed? <u>Comments:</u> NA						
Additional comments or information:						
Check (✓) Sections completed for this audit:				1. ✓	2. ✓	3. no
				4. no	5. no	6. no
Key: <div style="display: flex; justify-content: space-between;"> <div> 1. General Procedures 2. Ground Water Sampling 3. Soil, Sediment, Sludge Sampling </div> <div> 4. Surface Water Sampling 5. Waste Sampling 6. Monitoring Well Installation </div> </div>						

GENERAL PROCEDURES - SAFETY, RECORDS, QA/QC, CUSTODY, ETC.

1.	What types of samples were collected? <u>Comments:</u> Potable / residential wells
2.	Were sampling locations properly selected? In accordance with the sampling plan? <u>Comments:</u> Yes, taps closest to well pump.
3.	Were sampling locations adequately documented in a bound field log book using indelible ink? <u>Comments:</u> Locations and measurements were documented with data recorders. Notes were taken on work sheets.
4.	Were photos taken and a photo-log maintained? <u>Comments:</u> No.
5.	What field instruments were used during this investigation? <u>Comments:</u> YSI 556 multi-probe system (MPS) for temperature, conductivity, pH and dissolve oxygen. Hach 2100P Turbidity meter for turbidity. Trimble GPS unit for location coordinates.
6.	What safety monitoring equipment, protection and procedures were used prior to and during sampling? <u>Comments:</u> None required.
7.	Were field instruments properly calibrated and calibrations recorded in a bound field logbook? <u>Comments:</u> Did not observe. Water quality parameters instruments were calibrated at Dalton Utilities lab and the calibration data is electronically recorded.
8.	Were safety instruments properly calibrated and calibrations recorded in a bound field logbook? <u>Comments:</u> NA
9.	Was sampling equipment properly wrapped and protected from possible contamination prior to sample collection? <u>Comments:</u> Sample containers were shipped in sealed box and kept in box until sample collection.
10.	Were sample containers stored and/or transported separately from any source of gasoline, oils, or solvents prior to use? <u>Comments:</u> Yes
11.	After proper decontamination, was the equipment stored and/or transported in a "clean" environment away from gasoline, oil, grease, solvents, etc.? <u>Comments:</u> Yes
12.	Was sampling equipment constructed of glass or stainless steel? If not, what material? <u>Comments:</u> HDPE sample containers.
13.	Were samples collected in proper order, least suspected contamination to most contaminated? <u>Comments:</u> Yes
14.	Were clean disposable latex, nitrile or vinyl gloves worn during sample collecting? <u>Comments:</u> Yes
15.	Were gloves changed for each sample collected/sample location or as needed, if compromised? <u>Comments:</u> Yes
16.	Was any equipment field cleaned for re-use during sampling event? <u>Comments:</u> No
17.	List type of equipment cleaned: <u>Comments:</u> NA

18.	Were proper field cleaning procedures acceptable? <u>Comments:</u> NA
19.	Were equipment rinse blanks collected after field cleaning? <u>Comments:</u> NA
20.	Were proper sample containers used for this sampling event? <u>Comments:</u> Yes, 1-liter high density polyethylene (HDPE), box was sealed.
21.	Were split samples offered to the owner or facility representative, if required? <u>Comments:</u> NA
22.	Was a Receipt for Samples form given to the owner or facility representative, if required? <u>Comments:</u> No, will mail results to owner.
23.	Were any duplicate or split samples collected? Specify: <u>Comments:</u> No, DU leaving an information packet.
24.	Were samples properly field preserved? <u>Comments:</u> No preservative required, sample placed on ice after collection.
25.	Were preservative blanks utilized? <u>Comments:</u> NA
26.	Were field and/or trip blanks utilized? <u>Comments:</u> Yes, both field and trip blanks. Also, a duplicate sample was collected.
27.	Were samples adequately identified with labels or tags? <u>Comments:</u> Samples marked with sharpie on bottom. Labels are affixed prior to shipping.
28.	Were sample containers or coolers sealed with a custody seal after collection? <u>Comments:</u> Custody seal affixed to cooler prior to shipping.
29.	What other security measures were taken to insure custody of the samples after collection? <u>Comments:</u> Sample cooler kept in vehicle while sampling.
30.	Were Chain-of-Custody and Receipt for Sample forms properly completed? <u>Comments:</u> Reviewed a COC from 8/21/09. See page 11.
31.	Were samples shipped to a laboratory? If yes, was Chain-of-Custody included with shipment? <u>Comments:</u> Yes, samples are shipped to lab. Did not observe. DU verbally detailed their shipping procedures which were adequate.
32.	If Yes to Question 30, were samples properly packed? <u>Comments:</u> NA
33.	If samples were shipped to a CLP laboratory, were Chain-of-Custody forms filled out using Forms II Lite (Superfund only)? <u>Comments:</u> NA
34.	If samples were shipped to a CLP laboratory, was Sample Management Office notified daily? <u>Comments:</u> NA
<u>Other Comments/Observations:</u> General procedures for sampling potable/residential wells for PFCs analyses was acceptable.	

GROUNDWATER

1.	What well types (permanent monitoring wells, temporary monitoring wells, potable/residential wells, industrial, etc.) were sampled? <u>Comments: Potable/residential.</u>
2.	For monitoring wells, were wells locked and protected (flush mount or bumper guards)? <u>Comments: NA</u>
3.	Were identification marks and measurement points affixed to the wells? <u>Comments: NA</u>
4.	What were the sizes and construction materials of the well casings? <u>Comments: NA</u>
5.	Were the boreholes sealed at the surface with a concrete pad to prevent surface infiltration? <u>Comments: NA</u>
6.	Was there a dedicated pump in the well? <u>Comments: Yes</u>
7.	Was clean plastic sheeting placed around the well to prevent contamination of the sampling equipment and/or containers? <u>Comments: No</u>
8.	Were sample containers stored and/or transported separately from any source of gasoline, oils, or solvents prior to use? <u>Comments: Yes, HDPE sample containers were shipped in sealed box. Containers were kept in the box until used for sample collection.</u>
9.	Were the total depth and depth to water determined before purging? <u>Comments: NA</u>
10.	What device was used to determine the depth? <u>Comments: NA</u>
11.	Were measurements made to the nearest 0.01 foot? <u>Comments: NA</u>
12.	Was the measuring device properly cleaned between wells? Describe procedures. <u>Comments: NA</u>
13.	Was the measuring device wrapped in plastic or foil or otherwise protected during transportation and/or storage? <u>Comments: NA</u>
14.	How was the standing water volume determined? <u>Comments: NA</u>
15.	How many well volumes were removed and how was the purge volume determined? <u>Comments: Potable wells were purged for 15 minutes or until field parameters stabilized.</u>
16.	Was a sufficient volume of water purged prior to sampling? (3WCV for a 2" Well = ½ (td'-dw') gallons. <u>Comments: Potable wells were purged for 15 minutes or until field parameters stabilized.</u>
17.	How was the purge volume measured? (time or calibrated bucket) <u>Comments: Time.</u>
18.	What was the method of purging? Pump (specify pump type), bailer or other <u>Comments: Dedicated submersible pumps.</u>
19.	Were field parameters stable prior to sampling? <u>Comments: Yes.</u>
20.	How were samples collected? ____ Pump ____ Bailer ____ Other <u>Comments: Directly into the sample containers from taps near the wells.</u>

21.	If a pump was used, what type? <u>Comments:</u> Dedicated submersible pumps.
22.	If a peristaltic pump was used, was a vacuum jug assembly used also? <u>Comments:</u> NA
23.	If a submersible pump was used, was it properly decontaminated (cleaned) before and between wells? <u>Comments:</u> Dedicated.
24.	What were the cleaning procedures? <u>Comments:</u> NA
25.	If bailers were used, did the bailers have Teflon® coated wire leaders to prevent rope from coming into contact with the water? <u>Comments:</u> NA
26.	Were the bailers open top or closed top? <u>Comments:</u> NA
27.	What material type were the bailers? ____Stainless Steel ____Teflon® ____Other <u>Comments:</u> NA
28.	Was a clean bailer and new rope used at each well? <u>Comments:</u> NA
29.	Were samples properly transferred from the sampling device to the sample containers? <u>Comments:</u> NA
30.	Was the pH of field preserved samples checked to insure proper preservation? <u>Comments:</u> NA
31.	Were samples placed on ice immediately after collection? <u>Comments:</u> Yes.
32.	For what analyses were the samples collected? TestAmerica Method Den-LC-0012 <u>Comments:</u> PFCs including perfluorobutanoic acid, perfluoropentanoic acid, perfluorohexanoic acid, perfluoroheptanoic acid, perfluorooctanoic acid (C-8), perfluorononanoic acid, perfluorodecanoic acid, perfluoroundecanoic acid, perfluorododecanoic acid, perfluorotridecanoic acid and perfluorotetradecanoic acid. Also, perfluorobutane sulfonate (PFBS), perfluorohexane sulfonate (PFH₆S), perfluorooctane sulfonate (PFOS), and perfluorooctane sulfonamide (PFOSA).
33.	If samples were split, what were the sample locations/numbers for these? <u>Comments:</u> NA
34.	Were groundwater samples filtered or unfiltered? <u>Comments:</u> NA
35.	If groundwater samples were filtered, what procedure was used? <u>Comments:</u> NA
36.	If low flow/low volume sampling was employed, was the intake (Teflon® tubing) placed at the top of the water column? If not, why? <u>Comments:</u> NA
37.	If low flow/low volume sampling was employed, is the water level being constantly measured to insure minimal drawdown of less than 3 to 4 inches? (Purge Rate = Rate of Recovery) <u>Comments:</u> NA
38.	How many wells were sampled? ____Up gradient ____Down gradient <u>Comments:</u> Three samples (sample 79, 80 and 81). Duplicate collected at sample 81 location.

Other Comments/Observations:

- 1. While purging a residential well, a garden hose is recommended to divert purge water away from the tap to prevent puddles from forming near the sample area. The garden hose should be removed prior to sampling.**
- 2. Information on the laboratory that DU is using is:**

**TestAmerica
4955 Yarrow Street
Arvada, CO 80002
(303) 736-0100
Contact: Michelle Johnston**

Table 1 - Photographs



Photo 1 - Looking Southeast – Compost windrow curing on Dalton Utilities LAS site.



Photo 2 – Looking East – Dalton Utilities sampler purging in preparation of sample 79 collection at pump well house.



Photo 3 – Looking West – Dalton Utilities sampler preparing a field blank.



Photo 4 – Looking West – Dalton Utilities sampler purging in preparation of sample 80 collection at the tap on the residence closest to the pump well house.

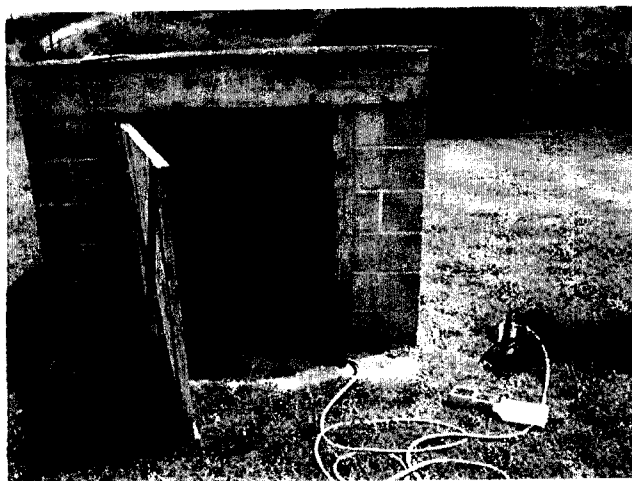


Photo 5 – Looking South – Dalton Utilities sampler purging in preparation of sample 81 collection at pump well house.

Chain of Custody Record

TAL-412-250 (3506)

Sample ID _____

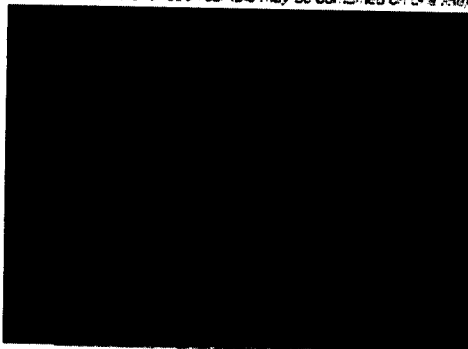
Temperature on Receipt: _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: <u>Dalton Utilities</u>		Project Manager: <u>John Henderson</u>		Date: <u>8-21-09</u>
Address: <u>P.O. Box 869</u>		Telephone Number (Area Code) (Fax Number): <u>746-529-1010</u>		Lab Number: _____
City: <u>Dalton</u>	State: <u>GA</u>	Zip Code: <u>30722</u>	Site Contact: _____	Lab Contact: _____
Project Name and Location (State): <u>Private Well Samples</u>			Analysis (Attach list if more space is needed)	
Contract/Purchase Order/Quote No. _____				

Sample ID, No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix					Containers & Preservatives					
			AT	AW	SW	SL	SP	Upret	H2SO4	HNO3	HCl	NH4OH	Dist. H2O
	8-21-09	10:19	X										X
		10:30	X										X
		10:46	X										X
		11:05	X										X
		11:14	X										X
		11:22	X										X
	V	11:48	X										X
8-21-09	12:00		X										X

Possible Hazard Identification		Sample Disposal		(A fee may be assessed longer than 1 month)	
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poisonous	<input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client
Turn Around Time Required			Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
<input type="checkbox"/> 24 Hours	<input type="checkbox"/> 48 Hours	<input type="checkbox"/> 7 Days	<input type="checkbox"/> 14 Days	<input type="checkbox"/> 21 Days	<input checked="" type="checkbox"/> Other <u>ASAP</u>
1. Requested By: <u>[Signature]</u>		Date: <u>8-21-09</u>	Time: <u>16:00</u>	2. Received By: _____	
2. Requested By: _____		Date: _____	Time: _____	2. Received By: _____	
3. Requested By: _____		Date: _____	Time: _____	3. Received By: _____	
Comments: _____					

DISTRIBUTION: WHITE - Returned to Client with Report, CANARY - Stays with the Sample, PINK - Field Copy

**United States Environmental Protection Agency
Region 4**

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720



**Sampling Investigation Trip Report
North Georgia Public Water Suppliers
Perfluorinated Compounds Study**

**North Georgia including Dalton, Calhoun, Rome and Athens
Conducted on January 25 and 26, 2010**

Report issued on February 11, 2010

SESD Project Identification Number: 10-0172

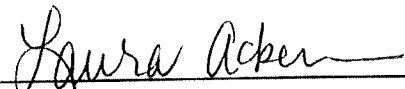
Requestor: Dan Olone, Chief
Drinking Water Section
Water Protection Division
61 Forsyth St. SW
Atlanta, Georgia 30303-8960

SESD Project Leader: Mike Neill
Enforcement and Investigations Branch
Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

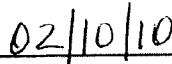
Title and Approval Sheet

Title: Sampling Investigation Trip Report
North Georgia Public Water Suppliers Perfluorinated Compounds Study
North Georgia including Dalton, Calhoun, Rome and Athens

Approving Official:

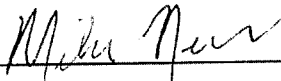


Laura Ackerman, Chief
Enforcement Section
Enforcement and Investigations Branch

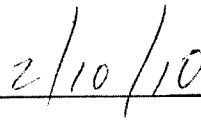


Date

SESD Project Leader:



Mike Neill, Environmental Scientist
Enforcement Section
Enforcement and Investigations Branch



Date

Sampling Investigation Trip Report
North Georgia Public Water Suppliers Perfluorinated Compounds Study
North Georgia including Dalton, Calhoun, Rome and Athens

INTRODUCTION

On January 25 and 26, 2010, the United States Environmental Protection Agency (USEPA), Region 4, Science and Ecosystem Support Division (SESD) personnel conducted a public water sampling investigation in North Georgia. Public drinking water from plants in Dalton, Calhoun, Rome and Athens was sampled (Figure 1). USEPA SEDS representatives, along with Georgia Environmental Protection Division (GAEPD) personnel, conducted sampling at public water supply plants to obtain levels of perfluorinated compounds in the drinking water. The sampling investigation was requested by the USEPA Region 4, Water Protection Division (WPD).

Personnel that participated in the investigation included:

PERSONNEL	AFFILIATION	PHONE
Mike Neill	USEPA, SEDS, Project Leader	706-355-8614
Marty Allen	USEPA, SEDS, Sampler	706-355-8651
Bill Delfino	GAEPD	404-463-1295
Pete Zorbanos	GAEPD	404-657-7431
Dena Haverland	Dalton Utilities	706-529-1010
Danny Stevens	Calhoun Utilities	770-548-1816
William Hardin	Rome Utilities	706-236-8226
William Cottrell	Athens-Clarke County Utilities	706-613-3481

BACKGROUND

A study by the University of Georgia in 2006 sampled surface water from the Conasauga River for perfluorinated compounds (PFCs). Results showed concentrations of perfluorooctanoic acid (PFOA) and perfluorooctyl sulfonate (PFOS) were high downstream of the Dalton Utilities Wastewater Treatment Plant (WWTP) with values for PFOA ranging from 253 – 1150 ng/L and values for PFOS ranging from 192-318 ng/L.

In January 2009, the USEPA Office of Water (OW) issued drinking water Provisional Health Advisories (PHAs) for PFOA at 400 ng/L and for PFOS at 200 ng/L.

One Public Water Supplier (PWS) operates plants upstream of the Dalton Utilities WWTP and two PWSs (Calhoun and Rome) operate plants downstream of the Dalton Utilities WWTP.

Sampling was conducted on March 30 & 31, 2009 to determine concentrations of PFCs in the drinking water at the Dalton, Calhoun and Rome PWSs (SESD Project ID. 09-0322). Laboratory analyses of the samples by USEPA National Enforcement Investigations Center (NEIC) in Denver, CO, indicated that both PFOA and PFOS were below the USEPA PHAs for PFOA and PFOS. NEIC could only report qualified analytical data for other PFC analytes.

The USEPA Region 4 Safe Drinking Water Branch requested SEDS to obtain additional samples from Dalton Utilities, Calhoun Utilities and Rome Utilities for PFC analyses. Also, the Water Protection Division (WPD) identified an additional PWS to be sampled. A concerned citizen had contacted the WPD about PFCs used at a facility near the Athens-Clarke County drinking water sources.

DISCUSSION OF FIELD ACTIVITIES

The sampling investigation was a coordinated effort with the NEIC laboratory conducting the analyses. NEIC provided the 250-ml Nalgene® sample containers with trizma to de-chlorinate and buffer the samples. SEDS's laboratory personnel prepared a preservative (using trizma supplied by NEIC) and a trip blank. Representatives from GAEPD directed the sample team to the various plants, and SEDS personnel collected the samples.

A total of fifteen samples were collected from seven public drinking water treatment plants. Six finished water samples (D1F, D2F, D3F, C1F, C2F and R1F) and nine raw water samples (D1R, D2R, D3R, C1R, C2R, R1R1, R1R2, A1R and A2R) were collected. Three public water treatment plants were sampled from Dalton Utilities, and two public water treatment plants were sampled from Calhoun Utilities. One public water treatment plant was sampled from Rome Utilities. The Rome public water treatment plant uses raw water from both the Oostanaula and Etowah rivers. One public water treatment plant was sampled from Athens-Clarke County Utilities.

North Georgia has experienced above average amount of precipitation this past Fall and Winter. A heavy storm event on January 24, 2010, caused flooding and high flow in the rivers that were being sampled as part of this investigation. As a result of the elevated flow in the rivers, high turbidity was encountered in the Etowah (R1R2), North Oconee (A1R) and Middle Oconee (A2R) rivers. When NEIC completes the analyses, the reported data should be assessed for impacts from the high flow in the rivers at the time of the sampling investigation.

Table 1 provides data for the sample collection activities. Field measurements were made for the water quality parameters for the finished water samples and samples R1R2, A1R and A2R. Appendix A contains photographs taken during SEDS's sampling investigation.

METHODOLOGY

Field sampling procedures were performed by SEDS's Enforcement and Investigations Branch personnel. Where applicable, field activities were conducted in accordance with SEDS's Management and Quality Systems Procedures and the following field measurement and sampling procedures:

SESD Operating Procedure for Sample and Evidence Management, SESDPROC-005-R1
SESD Operating Procedure for Field pH Measurement, SESDPROC-100-R2
SESD Operating Procedure for Field Specific Conductance Measurement, SESDPROC-101-R2
SESD Operating Procedure for Field Temperature Measurement, SESDPROC-102-R2
SESD Operating Procedure for Field Turbidity Measurement, SESDPROC-103-R2
SESD Operating Procedure for Global Positioning System, SESDPROC-110-R2
SESD Operating Procedure for Potable Water Supply Sampling, SESDPROC-305-R1

Chain of Custody documentation was prepared by Kevin Simmons. The custody forms accompanied the samples for overnight delivery to the NEIC laboratory in Denver, CO. via FedEx (Airbill 816197873806) on January 27, 2010.

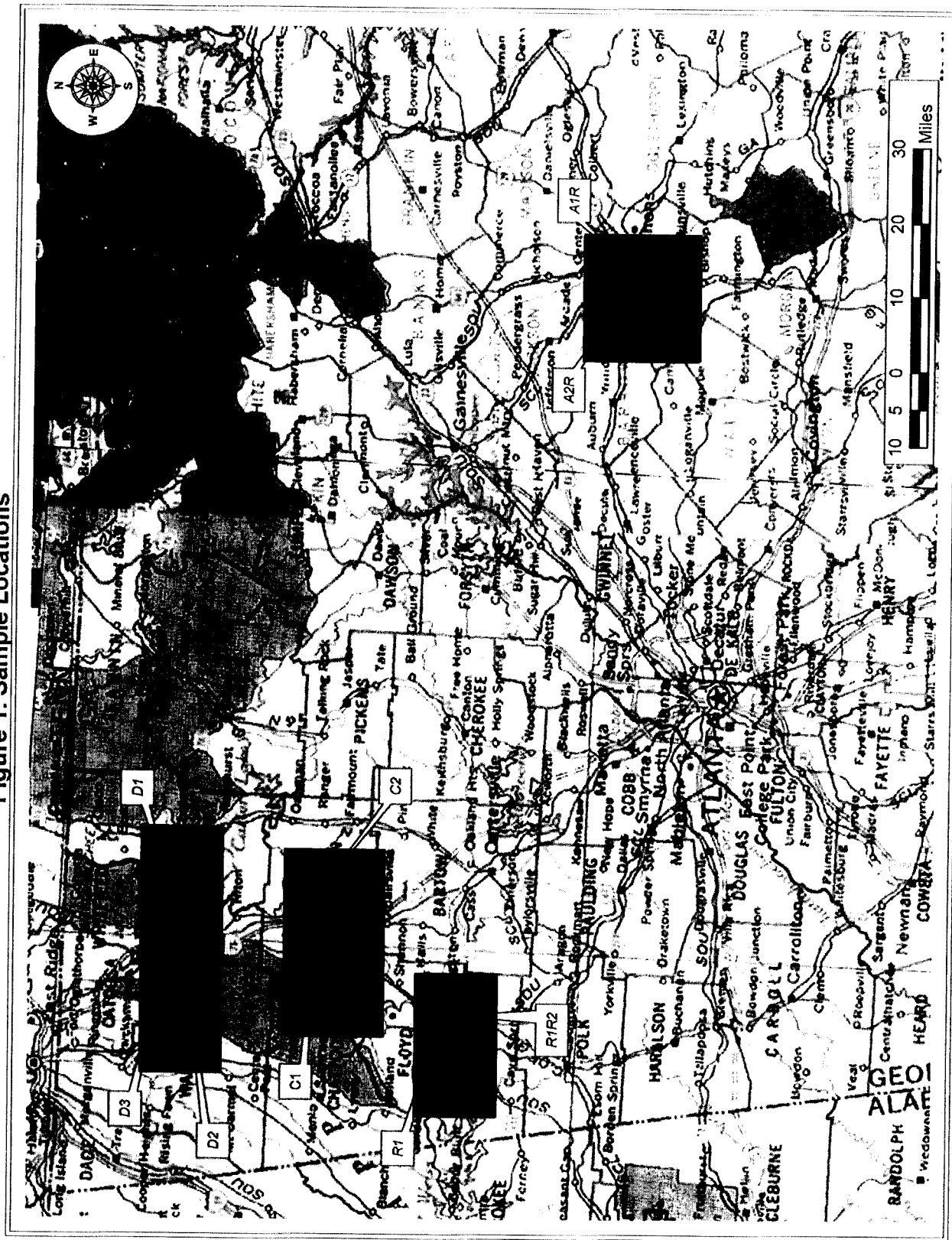
Samples collected from the Dalton Utilities plants were split with Ms Dena Haverland.

Table 1 – Sample Data

Sample Stations	Description	Date	Times	Sampler	Analyses	Coordinates	Field Measurements*
D1F D1R	Dalton Utilities Dalton Water Works VD Parrott Jr. Water Treatment Conasauga river water	1-26	0840 0835	M. Allen	PFCs		Temp: 7.4° C Cond: 137 µS/cm pH: 6.77 SUs Turb: 0.83 NTUs
D2F D2R	Dalton Utilities Freeman Springs Rd. Water Treatment Plant Groundwater	1-26	0925 0920	M. Allen	PFCs		Temp:14.4° C Cond: 228 µS/cm pH: 7.01 SUs Turb: 0.13 NTUs
D3F D3R	Dalton Utilities Mill Creek Water Treatment Plant Membrane filtration	1-26	1015 1008	M. Allen	PFCs		Temp:10.5° C Cond: 177 µS/cm pH: 7.05 SUs Turb: 0.21 NTUs
C1F C1R	Calhoun Utilities Mauldin Road Water Treatment Plant Coosawattee river water	1-26	1305 1300	M. Allen	PFCs		Temp:11.4° C Cond: 122 µS/cm pH: 7.19 SUs Turb: 0.39 NTUs
C2F C2R	Calhoun Utilities Brittney Drive Water Treatment Plant Groundwater	1-26	1125 1115	M. Allen	PFCs		Temp: 15.1° C Cond: 302 µS/cm pH: 6.83 SUs Turb: 0.13 NTUs
R1F R1R1	Rome Utilities Bruce Hammler - Blossom Hill Water Treatment Plant Oostanaula river water	1-26	1405 1403	M. Allen	PFCs		Temp:11.3° C Cond: 168 µS/cm pH: 7.22 SUs Turb: 0.51 NTUs
R1R2	Rome Utilities Etowah river water	1-26	1420	M. Allen	PFCs		Temp:11.3° C Cond: 862 µS/cm pH: 7.25 SUs Turb: 126 NTUs
A1R	Athens-Clarke County Public Utilities JG Beacham Water Plant North Oconee River	1-25	1335	M. Allen	PFCs		Temp:10.9° C Cond: 51.4 µS/cm pH: 8.05 SUs Turb: 116 NTUs
A2R	Athens-Clarke County Public Utilities Middle Oconee River	1-25	1410	M. Allen	PFCs		Temp:11.9° C Cond: 45.0 µS/cm pH: 8.03 SUs Turb: 617 NTUs
TB1	Trip Blank	1-25	1200	M. Allen	PFCs		-----
PB1	Preservative Blank	1-25	1200	M. Allen	PFCs		-----

* Field measurements were made on the finished water samples and samples R1R2, A1R and A2R.

Figure 1. Sample Locations



APPENDIX A

SESD SAMPLING INVESTIGATION PHOTOGRAPHS

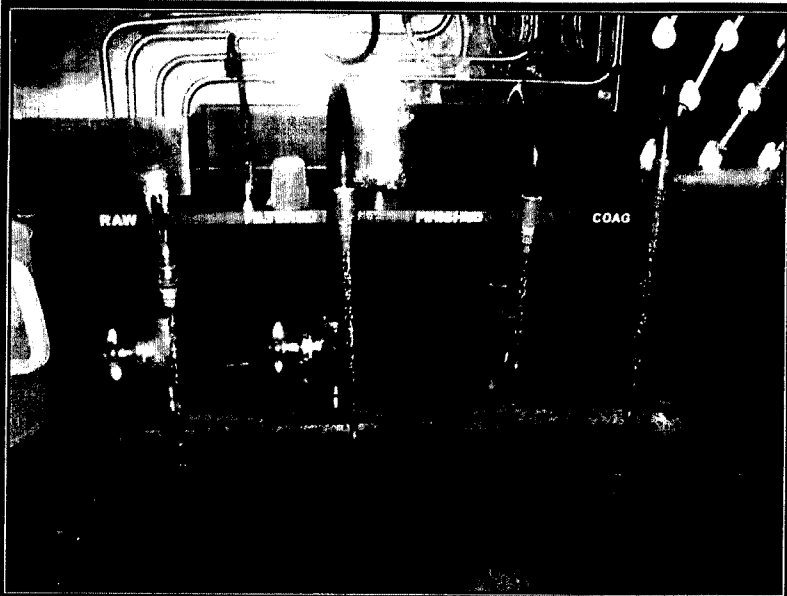


Photo 01 taken by M. Neill 1/26/10
D1 sample location. Raw on left, and
Finished 3rd from left.



Photo 2 taken by M. Neill 1/26/10
D2 sample location. Raw on left, and
Finished on the right.

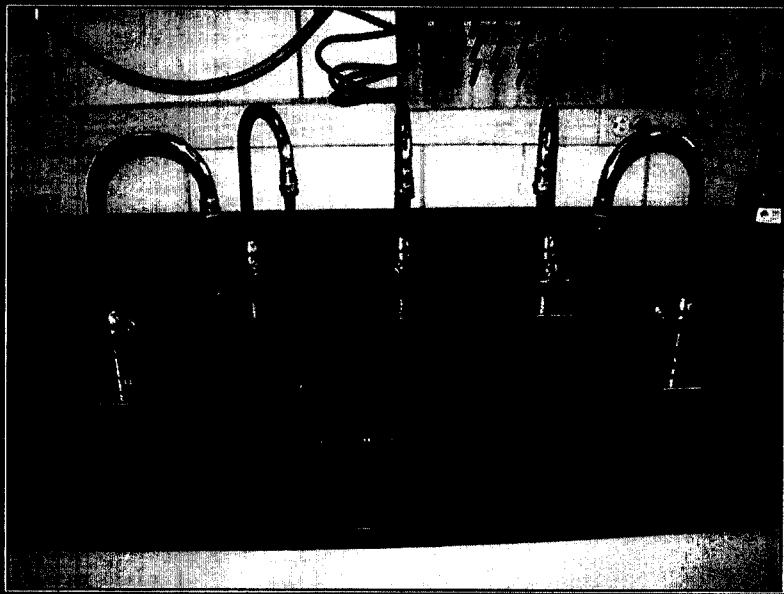


Photo 3 taken by M. Neill 1/26/10
D3 sample location. Raw on left, and
Finished on the right.

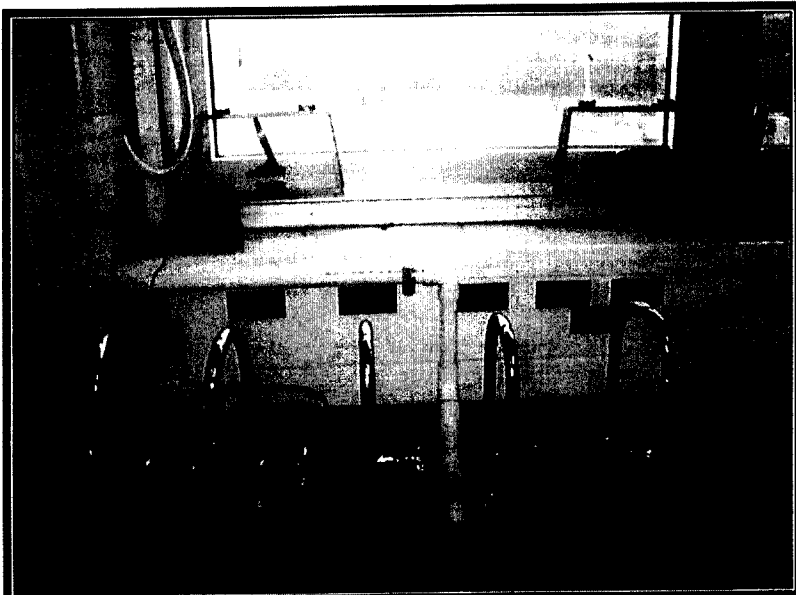


Photo 4 taken by M. Neill 1/26/10
C1 sample location. Raw on right,
and Finished on left.

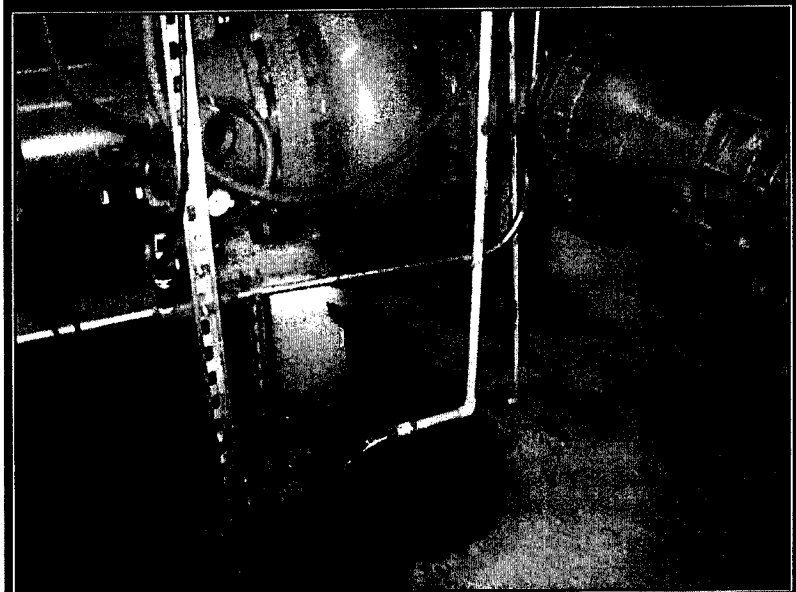


Photo 5 taken by M. Neill 1/26/10
C2R sample location.
(Source 400' well.)

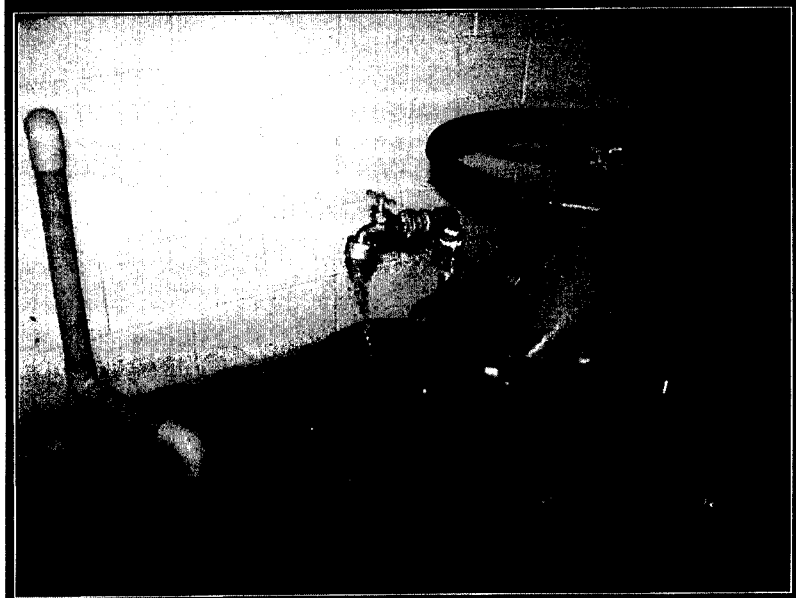


Photo 6 taken by M. Neill 1/26/10
C2F sample location.



Photo 7 taken by M. Neill 1/26/10
R1 sample location. Raw on left, and
Finished 3rd from left.



Photo 8 taken by M. Neill 1/26/10
R1R2 sample location was near intake
on the Etowah River.
Note: High water conditions, turbidity.



Photo 9 taken by M. Neill 1/25/10
A1R sample location near intake on the
North Oconee River.
Note: High water conditions, turbidity.



Photo 10 taken by M. Neill 1/25/10
A2R sample location across from the
intake on the Middle Oconee River.
Note: High water conditions, turbidity.

- END OF REPORT-

**United States Environmental Protection Agency
Region 4**

Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720



**Sampling Investigation Trip Report
North Georgia Public Water Suppliers
Perfluorinated Compounds Study**

**North Georgia including Dalton, Calhoun, Rome and Floyd County
Conducted on March 31 and 31, 2009**

Report issued on April 28, 2009

SESD Project Identification Number: 09-0322

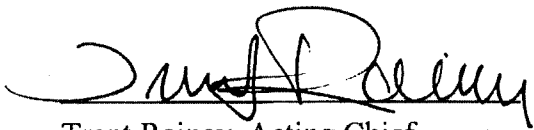
Requestor: Dan Olone, Chief
Drinking Water Section
Water Protection Division
61 Forsyth St. SW
Atlanta, Georgia 30303-8960

SESD Project Leader: Mike Neill
Enforcement and Investigations Branch
Science and Ecosystem Support Division
980 College Station Road
Athens, Georgia 30605-2720

Title and Approval Sheet

Title: Sampling Investigation Trip Report
North Georgia Public Water Suppliers Perfluorinated Compounds Study
North Georgia including Dalton, Calhoun, Rome and Floyd County

Approving Official:

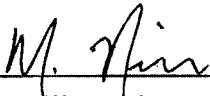


Trent Rainey, Acting Chief
Enforcement Section
Enforcement and Investigations Branch

4-28-09

Date

SESD Project Leader:



Mike Neill, Environmental Scientist
Enforcement Section
Enforcement and Investigations Branch

4-28-09

Date

Sampling Investigation Trip Report
North Georgia Public Water Suppliers Perfluorinated Compounds Study
North Georgia including Dalton, Calhoun, Rome and Floyd County

INTRODUCTION

On March 30 and 31, 2009, the United States Environmental Protection Agency (USEPA), Region 4, Science and Ecosystem Support Division (SESD) personnel conducted a public water sampling investigation in North Georgia. Public drinking water from plants in Dalton, Calhoun, Rome and Floyd County was sampled (Figure 1). USEPA SEDD representatives, along with Georgia Environmental Protection Division (GAEPD) personnel, conducted sampling at public water supply plants to obtain levels of perfluorinated compounds in the drinking water. The sampling investigation was requested by the USEPA Region 4, Water Protection Division (WPD).

Personnel that participated in the investigation included:

<u>PERSONNEL</u>	<u>AFFILIATION</u>	<u>PHONE</u>
Mike Neill	USEPA, SEDD, Project Leader	706-355-8614
Marty Allen	USEPA, SEDD, Sampler	706-355-8651
Bill Delfino	GAEPD	404-463-1295
Dena Haverland	Dalton Utilities	706-529-1010
Danny Stevens	Calhoun Utilities	770-548-1816
Joe Finger	Rome Utilities	706-236-4527
Lee Ross	Rome Utilities	706-236-4560
Randal Moore	Floyd County Water (Shannon)	706-290-7640

BACKGROUND

A study by the University of Georgia in 2006 sampled surface water from the Conasauga River for perfluorinated compounds (PFCs). Results showed concentrations of perfluorooctanoic acid (PFOA) and perfluorooctyl sulfonate (PFOS) were high downstream of the Dalton Utilities Wastewater Treatment Plant (WWTP) (PFOA ranged from 253 – 1150 ng/L; PFOS ranged from 192-318 ng/L).

In January 2009, the USEPA Office of Water (OW) issued drinking water Provisional Health Advisories for PFOA (400 ng/L) and for PFOS (200 ng/L).

One Public Water Supplier (PWS) operates plants upstream of the Dalton Utilities WWTP and three PWSs (Calhoun, Rome and Floyd County) operate plants downstream of the Dalton Utilities WWTP. Sampling was conducted to determine concentrations of PFCs in the drinking water for all four PWSs.

DISCUSSION OF FIELD ACTIVITIES

The sampling investigation was a coordinated effort with the USEPA National Enforcement Investigations Center (NEIC) laboratory providing the sample containers, and SESD's laboratory personnel preparing half the containers with sodium thiosulfate to de-chlorinate the "finished" water samples. A representative from GAEPD directed the sample team to the various plants, and SESD personnel collected the samples.

A total of fifteen samples were collected from seven public drinking water treatment plants. Both raw and finished water samples were collected. Three public water treatment plants were sampled from Dalton Utilities, and two public water treatment plants were sampled from Calhoun Utilities. One public water treatment plant was sampled from Rome Utilities. The Rome public water treatment plant uses raw water from both the Oostanaula and Etowah rivers. One public water treatment plant was sampled from Floyd County Utilities.

Table 1 provides data for the sample collection activities. Field measurements were made for the water quality parameters for the finished water samples and sample R1R2. Appendix A contains photographs taken during SESD's sampling investigation.

METHODOLOGY

Field sampling procedures were performed by SESD's Enforcement and Investigations Branch personnel. Where applicable, field activities were conducted in accordance with SESD's Management and Quality Systems Procedures and the following field measurement and sampling procedures:

SESD Operating Procedure for Sample and Evidence Management, SESDPROC-005-R1
SESD Operating Procedure for Field pH Measurement, SESDPROC-100-R2
SESD Operating Procedure for Field Specific Conductance Measurement, SESDPROC-101-R2
SESD Operating Procedure for Field Temperature Measurement, SESDPROC-102-R2
SESD Operating Procedure for Field Turbidity Measurement, SESDPROC-103-R2
SESD Operating Procedure for Global Positioning System, SESDPROC-110-R2
SESD Operating Procedure for Potable Water Supply Sampling, SESDPROC-305-R1

Chain of Custody documentation was prepared by Kevin Simmons. The custody forms accompanied the samples for overnight delivery to the NEIC laboratory in Denver, CO. via FedEx (Airbill 816197873791) on April 1 and 2, 2009.

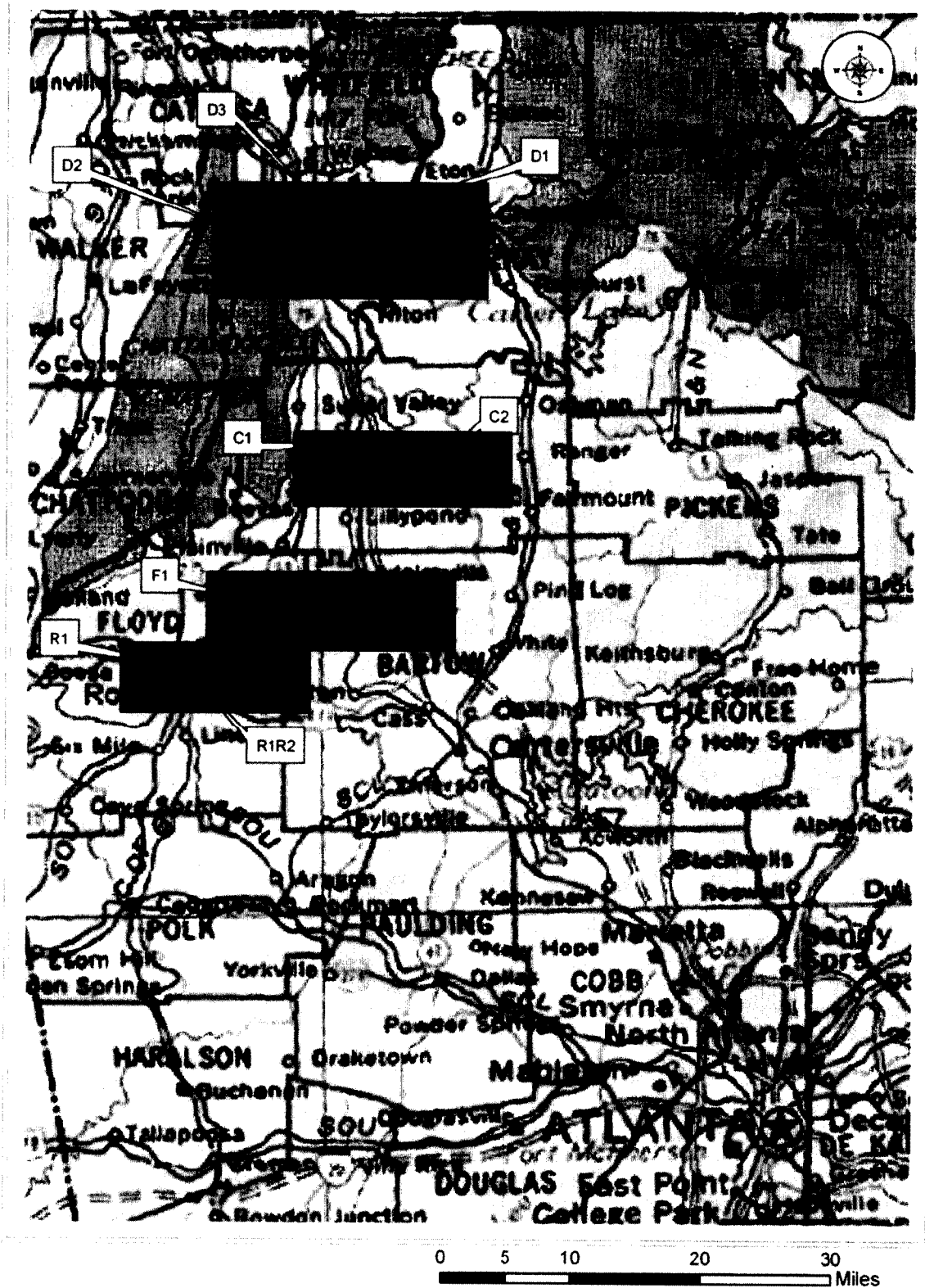
Samples collected from the Dalton Utilities plants were split with Ms Dena Haverland.

Table 1 – Sample Data

Sample Stations	Description	Date	Times	Sampler	Analyses	Coordinates	Field Measurements*
D1F D1R	Dalton Utilities Dalton Water Works VD Parrott Jr. Water Treatment Conasauga river water	3-30	13:17 13:15	M. Allen	PFCs		Temp:12.2° C Cond: 148.0 µS/cm pH: 6.79 SUs Turb: 0.16 NTUs
D2F D2R	Dalton Utilities Freeman Springs Rd. Water Treatment Plant Groundwater	3-30	14:17 14:15	M. Allen	PFCs		Temp:15.9° C Cond: 232.1 µS/cm pH: 7.05 SUs Turb: 0.08 NTUs
D3F D3R	Dalton Utilities Mill Creek Water Treatment Plant Membrane filtration	3-30	15:00 14:57	M. Allen	PFCs		Temp:15.9° C Cond: 223.3 µS/cm pH: 6.84 SUs Turb: 0.11 NTUs
C1F C1R	Calhoun Utilities Mauldin Road Water Treatment Plant Oostanaula river water	3-30	16:07 16:05	M. Allen	PFCs		Temp:14.5° C Cond: 138.5 µS/cm pH: 6.49 SUs Turb: 0.21 NTUs
C2F C2R	Calhoun Utilities Brittney Drive Water Treatment Plant Groundwater	3-30	16:45 16:40	M. Allen	PFCs		Temp: 16.4° C Cond: 297.1 µS/cm pH: 6.89 SUs Turb: 0.06 NTUs
R1F R1R1	Rome Utilities Bruce Hammler - Blossom Hill Water Treatment Plant Oostanaula river water	3-31	09:38 09:35	M. Allen	PFCs		Temp:14.4° C Cond: 185.9 µS/cm pH: 7.35 SUs Turb: 0.58 NTUs
R1R2	Rome Utilities Etowah river water	3-31	10:00	M. Allen	PFCs		Temp:11.8° C Cond: 123.1 µS/cm pH: 6.71 SUs Turb: 43.6 NTUs
F1F F1R	Floyd County Utilities Shannon Water Treatment Plant Woodward Creek	3-31	10:55 10:45	M. Allen	PFCs		Temp:12.8° C Cond: 196.4 µS/cm pH: 6.91 SUs Turb: 3.20 NTUs

* Field measurements were made on the finished water samples and sample R1R2.

Figure 1. Sample Locations



APPENDIX A

SESD SAMPLING INVESTIGATION PHOTOGRAPHS

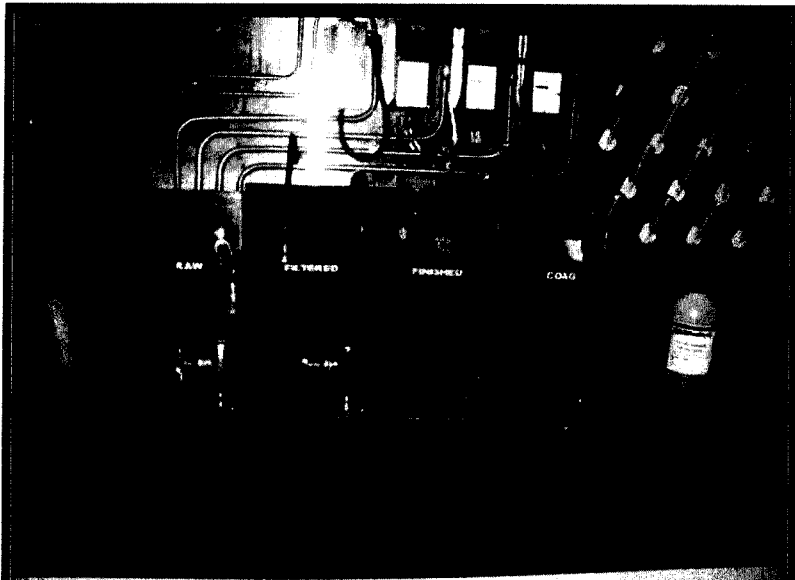


Photo 01 taken by M. Neill 3/30/09
D1 sample location. Raw on left, and
Finished 3rd from left.

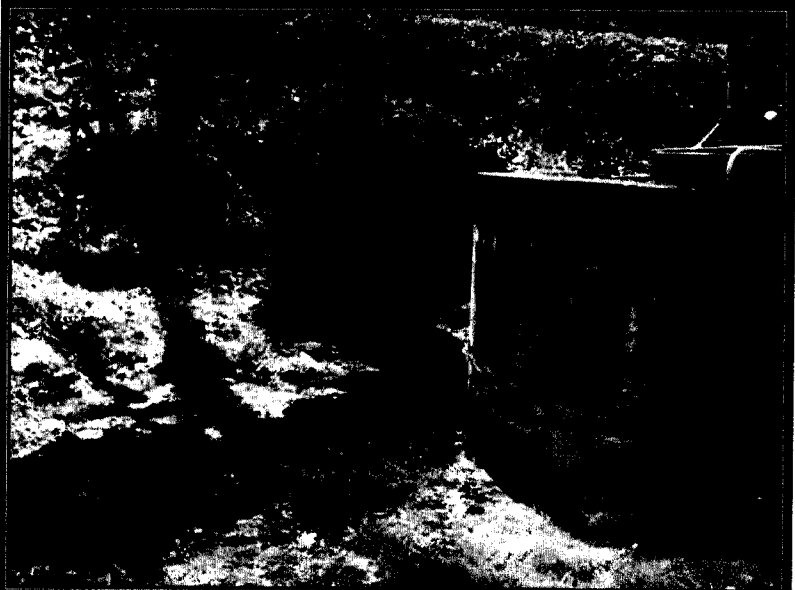


Photo 02 taken by M. Neill 3/30/09
D2 –Freeman Springs water source.

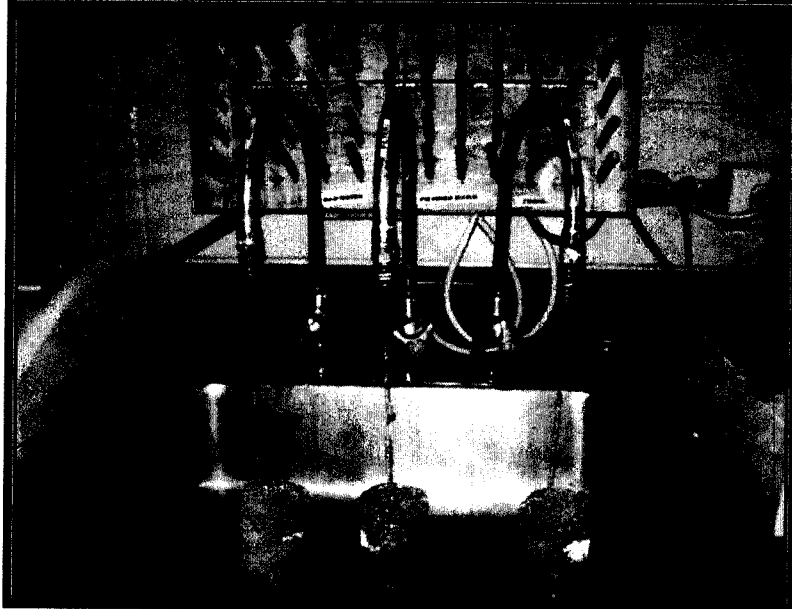


Photo 3 taken by M. Neill 3/30/09
D2 sample location. Raw on left, and
Finished on the right.

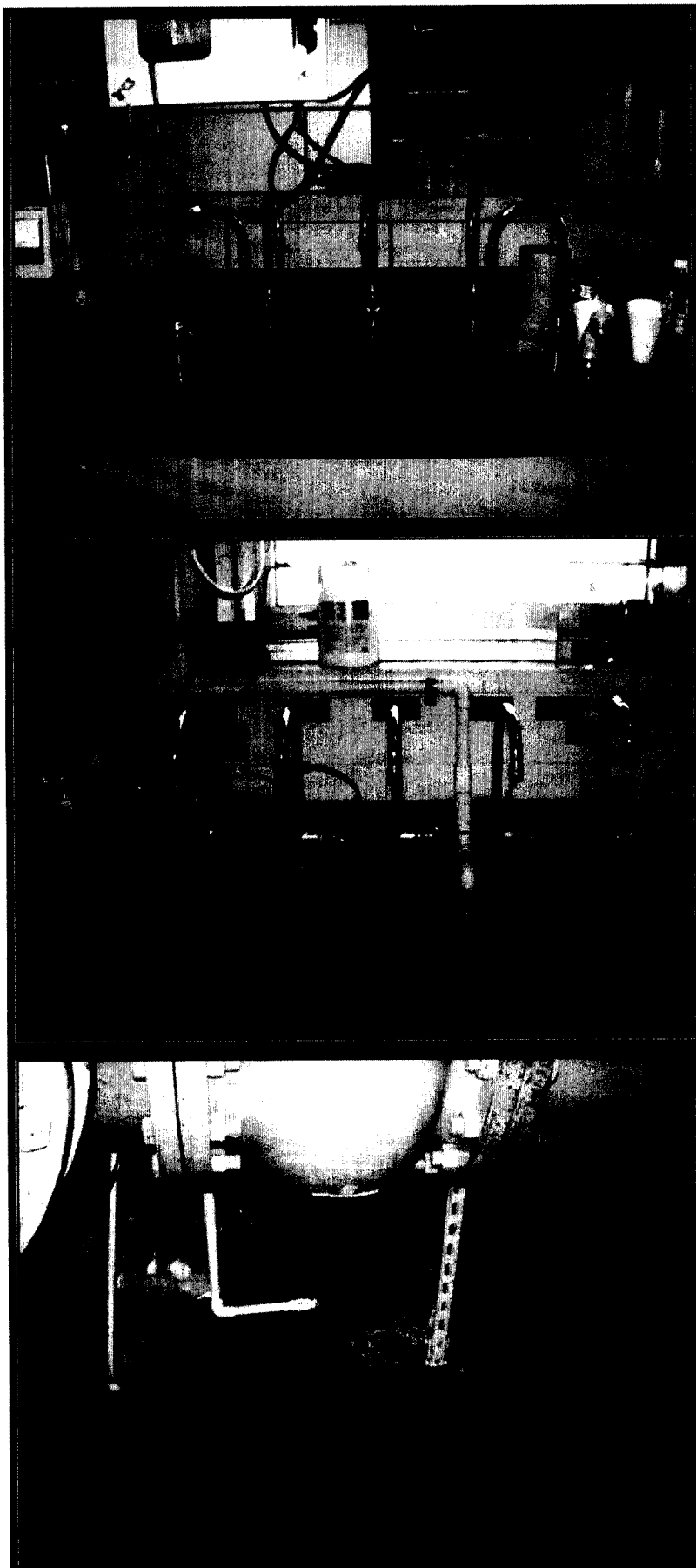


Photo 4 taken by M. Neill 3/30/09
D3 sample location. Raw on left, and
Finished on the right.

Photo 5 taken by M. Neill 3/30/09
C1 sample location. Raw on right,
and Finished on left.

Photo 6 taken by M. Neill 3/30/09
C2R sample location.
(Source 400' well.)



Photo 7 taken by M. Neill 3/30/09
C2F sample location.

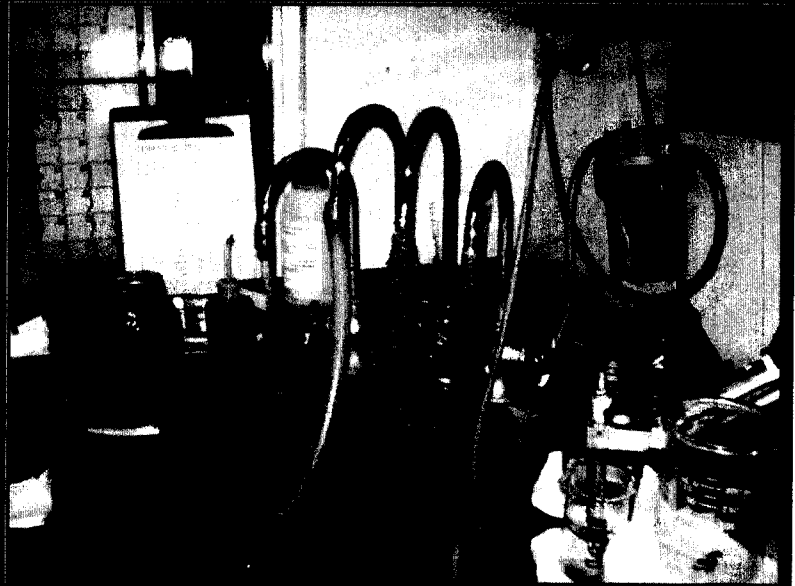


Photo 8 taken by M. Neill 3/31/09
R1 sample location. Raw on left, and
Finished 3rd from left.

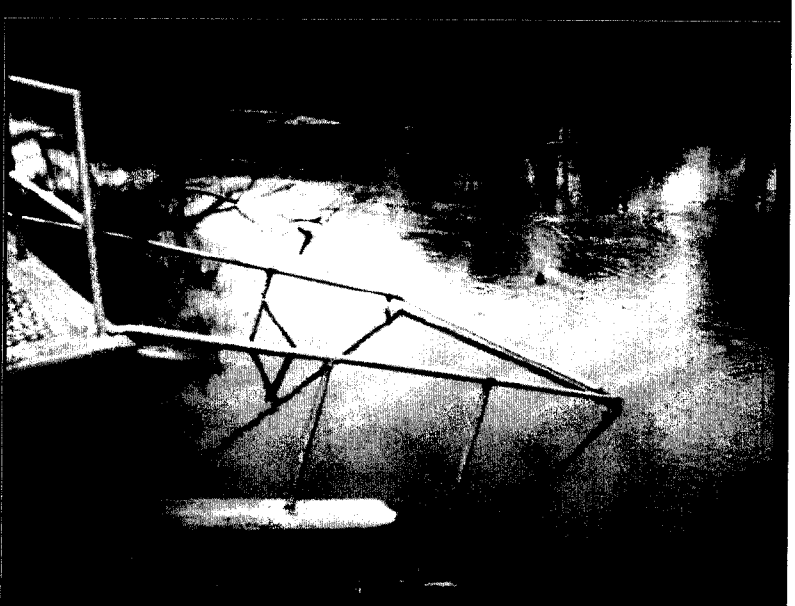


Photo 9 taken by M. Neill 3/31/09
R1R2 sample location was at intake
from the Etowah River.

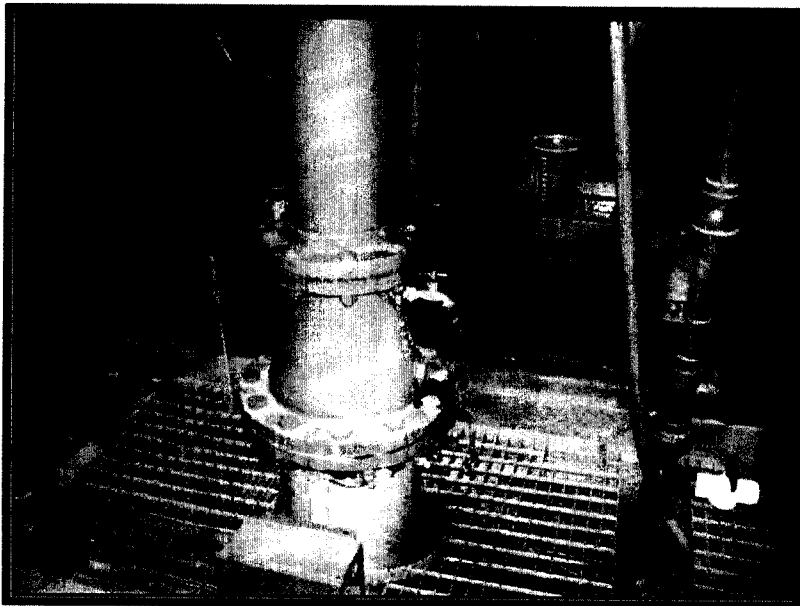


Photo 10 taken by M. Neill 3/31/09
F1R sample location.

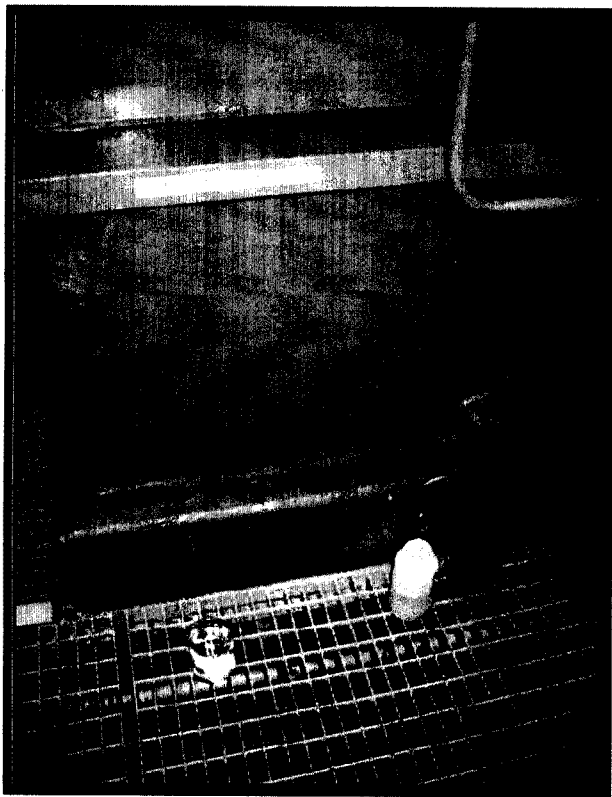


Photo 11 taken by M. Neill 3/31/09
F1F sample location.

- END OF REPORT-

ALSTON & BIRD LLP

One Atlantic Center
1201 West Peachtree Street
Atlanta, GA 30309-3424

404-881-7000
Fax: 404-881-7777
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Lee A. DeHihns, III

Direct Dial: 404-881-7151

E-mail: lee.dehins@alston.com

August 13, 2010

VIA UPS OVERNIGHT DELIVERY

Gail Mitchell, Deputy Director
Water Protection Division
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

2010 AUG 17 A 9 15

Re: October 6, 2009, Information Request – Section 308 of the Clean Water Act - Dalton Utilities Land Application System

Dear Ms. Mitchell:

This letter provides information from Dalton Utilities in connection with its ongoing responses to EPA's October 6, 2009, Section 308 of the Clean Water Act request (the "Request") addressed to Mr. Don Cope, President and CEO of Dalton Utilities. The enclosures are a letter and report dated August 10, 2010, with a certification signed pursuant to the Request in response to Paragraph 2 of Enclosure A of the Request, the **Private Drinking Water Well Monitoring Report**.

Please contact me if have any questions regarding the information supplied pursuant to the Request.

Sincerely,



Lee A. DeHihns, III

LAD:gba
Enclosures

LEGAL02/32111599v1



August 10, 2010

Ms. Gail Mitchell, Deputy Director
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Information Request Pursuant to Section 308 of the Clean Water Act
Analytical Sample Results and Monthly Progress Report

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting the final analytical results received for the sampling conducted as outlined in Dalton Utilities Private Drinking Water Well Monitoring Report. The results are contained in Attachment A which is provided herein as a bound report titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Job # 280-5099-1 which contains 251 pages.

As noted in our correspondence dated July 6, 2010, one private drinking water well sample had several internal laboratory standard recoveries that were outside of the laboratory's acceptable range; therefore, the private well located at 705 Peek Road was re-sampled to ensure proper analyses and reporting.

As stipulated in the aforementioned 308 letter, Dalton Utilities Private Drinking Water Well Monitoring Report, and Dalton Utilities correspondence to you dated April 30, 2010, the attached analytical report is the final report for the private drinking water wells.

If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate,

Ms. Gail Mitchell
August 10, 2010
Page 2 of 2

and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Cope", with a stylized flourish extending from the end.

Don Cope
President & CEO

Attachment

- c: Mr. Allen Barnes, Georgia Environmental Protection Division (cover letter only)
Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural Resources (cover letter only)
Dr. Becky Champion, Georgia Environmental Protection Division (cover letter only)
Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
Lee A. DeHihns, Esq.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

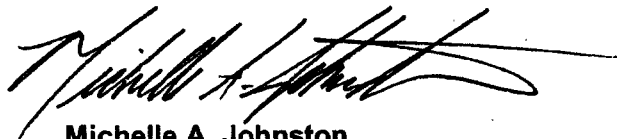
ANALYTICAL REPORT

Perfluorocarbon (PFC) Analysis

Lot #: D9K200620

Dena Haverland

Dalton Utilities
1200 V.D. Parrot Jr. Parkway
Dalton, GA 30721



Michelle A. Johnston
Project Manager

January 13, 2010

Case Narrative

D9K200620

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Sample Arrival and Receipt

The following report contains the analytical results for eight samples received at TestAmerica Denver on November 20, 2009, according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 12.1°C.

The samples were received above the recommended temperature of 4 +/- 2 degrees Celsius. The client was notified on November 23, 2009.

No other anomalies were encountered during sample receipt.

Standards

Analytical standards were prepared using commercially available certified solutions containing all compounds of interest.

The mass labeled compounds 13C4 PFBA, 13C2 PFHxA, 18O2 PFHxS, 13C4 PFOA, 13C4 PFOS, 13C5 PFNA, 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, and D3 MeFOSA were introduced at the extraction step and were used for internal standards for the quantitation of the target compounds.

Sample Extraction and Analysis

The samples presented in this report were extracted for the target analytes by TestAmerica Denver's Standard Operating Procedure (SOP) DV-OP-0019 and analyzed for the target analytes by TestAmerica Denver's SOP DV-LC-0012.

Method QC Samples

The Method Blank is processed reagent water spiked with internal standard and prepared with each batch of 20 samples of the same matrix. The method blanks were non-detect at the reporting limits for the target analytes.

Each batch is prepared with low and mid level Laboratory Control Samples (LCS). The LCS recoveries for both levels were within established control limits, with the exception of the items noted in section Analytical Comments.

Lot #: D9K200620

Analytical Comments

The Standard Operating Procedure (SOP) was altered slightly in the sample preparation for FOSA. Sodium hydroxide was added to both samples to obtain a pH of 14 instead of the SOP required <2. The basic pH is generating better internal standard recoveries for MeFOSA.

The method required MS/MSD could not be performed for QC batch 9328466, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable low-level LCS and mid-level LCS/LCSD analyses data.

The Standard Operating Procedure (SOP) was altered slightly for these samples in the sample prep and LC conditions. The alterations are listed below.

Solvents are now the same as they were in the original SOP and run per the following gradient: From 0 to 11 minutes, the flow rate is 0.4 mL/minute and the MeOH ramps up from 25% to 100%. From 11 to 11.01 minutes, the flow rate increases to 0.7 mL/minute and this flow is diverted from the MS. At 13 minutes the flow rate decreases back down to 0.4 mL/minute and 25% MeOH. The column then equilibrates to 14 minutes.

PFTriA and PFTeA now use 13C2 PFUnA as their internal standard instead of 13C2 PFDoA.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9K200620

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
11-18-09-01 11/18/09 11:06 001				
Perfluorooctanoic Acid	0.019 J	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.017 J	0.020	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.0063 J	0.020	ug/L	DEN -LC-0012
11-18-09-02 11/18/09 11:19 002				
Perfluorooctanoic Acid	0.057	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.017 J	0.020	ug/L	DEN -LC-0012
Perfluoropentanoic acid (PFPA)	0.012 J	0.030	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.016 J	0.020	ug/L	DEN -LC-0012
Perfluoroheptanoic acid (PFHpA)	0.017 J	0.020	ug/L	DEN -LC-0012
Perfluorobutane sulfonate (PFB)	0.0083 J	0.020	ug/L	DEN -LC-0012
Perfluorohexane sulfonate (PFHxS)	0.011 J	0.030	ug/L	DEN -LC-0012
11-18-09-03 11/18/09 11:53 003				
Perfluorooctanoic Acid	0.011 J	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.029	0.020	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.0050 J	0.020	ug/L	DEN -LC-0012
11-18-09-04 11/18/09 12:10 004				
Perfluorooctanoic Acid	0.13	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.027	0.020	ug/L	DEN -LC-0012
Perfluorobutanoic acid (PFBA)	0.035	0.020	ug/L	DEN -LC-0012
Perfluoropentanoic acid (PFPA)	0.093	0.030	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.063	0.020	ug/L	DEN -LC-0012
Perfluoroheptanoic acid (PFHpA)	0.047	0.020	ug/L	DEN -LC-0012
Perfluorononanoic acid (PFNA)	0.019 J	0.020	ug/L	DEN -LC-0012
Perfluorodecanoic acid (PFDA)	0.030	0.020	ug/L	DEN -LC-0012
Perfluorobutane sulfonate (PFB)	0.030	0.020	ug/L	DEN -LC-0012
11-18-09-05 11/18/09 12:25 005				
Perfluorooctanesulfonate	0.025	0.020	ug/L	DEN -LC-0012
11-18-09-06 11/18/09 006				
Perfluorooctanesulfonate	0.025	0.020	ug/L	DEN -LC-0012

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

D9K200620

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
11-18-09-07 11/18/09 12:42 007				
Perfluorooctanoic Acid	0.012 J	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.031	0.020	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.0037 J	0.020	ug/L	DEN -LC-0012
11-18-09-08 11/18/09 13:04 008				
Perfluorooctanoic Acid	0.10	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.072	0.020	ug/L	DEN -LC-0012
Perfluorobutanoic acid (PFBA)	0.013 J	0.020	ug/L	DEN -LC-0012
Perfluoropentanoic acid (PFPA)	0.039	0.030	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.049	0.020	ug/L	DEN -LC-0012
Perfluoroheptanoic acid (PFHpA)	0.038	0.020	ug/L	DEN -LC-0012
Perfluorobutane sulfonate (PFB)	0.030	0.020	ug/L	DEN -LC-0012
Perfluorohexane sulfonate (PFH)	0.041	0.030	ug/L	DEN -LC-0012

METHODS SUMMARY

D9K200620

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
LC/MS/MS PFCs	DEN -LC-0012	SW846 FOSA spec

References:

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

METHOD / ANALYST SUMMARY

D9K200620

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
DEN -LC-0012	Andria Lenoble	000800
DEN -LC-0012	Jacqueline Bonnett	003601

References:

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

SAMPLE SUMMARY

D9K200620

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LPW4F	001	11-18-09-01		
LPW4W	002	11-18-09-02	11/18/09	11:06
LPW40	003	11-18-09-03	11/18/09	11:19
LPW41	004	11-18-09-04	11/18/09	11:53
LPW42	005	11-18-09-05	11/18/09	12:10
LPW44	006	11-18-09-06	11/18/09	12:25
LPW46	007	11-18-09-07	11/18/09	
LPW47	008	11-18-09-08	11/18/09	12:42
			11/18/09	13:04

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Dalton Utilities

Client Sample ID: 11-18-09-01

HPLC

Lot-Sample #....: D9K200620-001 Work Order #....: LPW4F1AA Matrix.....: WATER
Date Sampled....: 11/18/09 11:06 Date Received...: 11/20/09
Prep Date.....: 11/23/09 Analysis Date...: 12/05/09
Prep Batch #....: 9327211 Analysis Time...: 02:18
Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	0.019 J	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.017 J	0.020	ug/L	0.013

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	86	(60 - 155)
13C4 PFOS	60	(45 - 130)

NOTE(S) :

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: 11-18-09-01

HPLC

Lot-Sample #....: D9K200620-001 Work Order #....: LPW4F1AC Matrix.....: WATER
Date Sampled....: 11/18/09 11:06 Date Received...: 11/20/09
Prep Date.....: 11/24/09 Analysis Date...: 12/01/09
Prep Batch #....: 9328466 Analysis Time...: 12:45
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	60	(37 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-01

HPLC

Lot-Sample #....: D9K200620-001 Work Order #....: LPW4F2AA Matrix.....: WATER
 Date Sampled....: 11/18/09 11:06 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/24/09
 Prep Batch #....: 9327211 Analysis Time...: 05:57
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.0063 J	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	95	(60 - 155)
13C4 PFOS	77	(45 - 130)
13C4 PFBA	101	(36 - 130)
13C2 PFHxA	94	(55 - 135)
18O2 PFHxS	97	(61 - 130)
13C5 PFNA	83	(54 - 132)
13C2 PFDA	70	(53 - 130)
13C2 PFUnA	52	(37 - 130)
13C2 PFDoA	47	(26 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: 11-18-09-02

HPLC

Lot-Sample #....: D9K200620-002 Work Order #....: LPW4W1AA
 Date Sampled....: 11/18/09 11:19 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/05/09
 Prep Batch #....: 9327211 Analysis Time...: 02:23
 Dilution Factor: 1

Matrix.....: WATER

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	0.057	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.017 J	0.020	ug/L	0.013

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	86	(60 - 155)
13C4 PFOS	57	(45 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: 11-18-09-02

HPLC

Lot-Sample #....: D9K200620-002 Work Order #....: LPW4W1AC Matrix.....: WATER
Date Sampled....: 11/18/09 11:19 Date Received...: 11/20/09
Prep Date.....: 11/24/09 Analysis Date...: 12/01/09
Prep Batch #....: 9328466 Analysis Time...: 12:50
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOSA	50	(37 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-02

HPLC

Lot-Sample #....: D9K200620-002 Work Order #....: LPW4W2AA Matrix.....: WATER
 Date Sampled....: 11/18/09 11:19 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/24/09
 Prep Batch #....: 9327211 Analysis Time...: 06:12
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	0.012 J	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.016 J	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	0.017 J	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	0.0083 J	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	0.011 J	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	110	(60 - 155)
13C4 PFOS	84	(45 - 130)
13C4 PFBA	113	(36 - 130)
13C2 PFHxA	113	(55 - 135)
18O2 PFHxS	110	(61 - 130)
13C5 PFNA	93	(54 - 132)
13C2 PFDA	85	(53 - 130)
13C2 PFUnA	76	(37 - 130)
13C2 PFDoA	77	(26 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: 11-18-09-03

HPLC

Lot-Sample #....: D9K200620-003 Work Order #....: LPW401AA Matrix.....: WATER
Date Sampled....: 11/18/09 11:53 Date Received...: 11/20/09
Prep Date.....: 11/23/09 Analysis Date...: 12/05/09
Prep Batch #....: 9327211 Analysis Time...: 02:28
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	0.011 J	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.029	0.020	ug/L	0.013

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOA	91	(60 - 155)
13C4 PFOS	70	(45 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: 11-18-09-03

HPLC

Lot-Sample #....: D9K200620-003 Work Order #....: LPW401AC Matrix.....: WATER
Date Sampled....: 11/18/09 11:53 Date Received...: 11/20/09
Prep Date.....: 11/24/09 Analysis Date...: 12/01/09
Prep Batch #....: 9328466 Analysis Time...: 12:55
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOSA	47	(37 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-03

HPLC

Lot-Sample #....: D9K200620-003 Work Order #....: LPW402AA Matrix.....: WATER
 Date Sampled....: 11/18/09 11:53 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/24/09
 Prep Batch #....: 9327211 Analysis Time...: 06:27
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.0050 J	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	108	(60 - 155)
13C4 PFOS	92	(45 - 130)
13C4 PFBA	106	(36 - 130)
13C2 PFHxA	101	(55 - 135)
18O2 PFHxS	100	(61 - 130)
13C5 PFNA	95	(54 - 132)
13C2 PFDA	90	(53 - 130)
13C2 PFUnA	84	(37 - 130)
13C2 PFDoA	81	(26 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: 11-18-09-04

HPLC

Lot-Sample #....: D9K200620-004 Work Order #....: LPW411AA Matrix.....: WATER
Date Sampled....: 11/18/09 12:10 Date Received...: 11/20/09
Prep Date.....: 11/23/09 Analysis Date...: 12/05/09
Prep Batch #....: 9327211 Analysis Time...: 02:33
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	0.13	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.027	0.020	ug/L	0.013

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
13C4 PFOA	89	(60 - 155)
13C4 PFOS	64	(45 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-04

HPLC

Lot-Sample #....: D9K200620-004 Work Order #....: LPW411AC Matrix.....: WATER
 Date Sampled....: 11/18/09 12:10 Date Received...: 11/20/09
 Prep Date.....: 11/24/09 Analysis Date...: 12/01/09
 Prep Batch #....: 9328466 Analysis Time...: 13:00
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	46	(37 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-04

HPLC

Lot-Sample #....: D9K200620-004 Work Order #....: LPW412AA Matrix.....: WATER
 Date Sampled....: 11/18/09 12:10 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/24/09
 Prep Batch #....: 9327211 Analysis Time...: 06:42
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorobutanoic acid (PFBA)	0.035	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	0.093	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.063	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	0.047	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	0.019 J	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	0.030	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	0.030	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	120	(60 - 155)
13C4 PFOS	95	(45 - 130)
13C4 PFBA	125	(36 - 130)
13C2 PFHxA	119	(55 - 135)
18O2 PFHxS	112	(61 - 130)
13C5 PFNA	101	(54 - 132)
13C2 PFDA	93	(53 - 130)
13C2 PFUnA	83	(37 - 130)
13C2 PFDoA	86	(26 - 130)

NOTE(S) :

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: 11-18-09-05

HPLC

Lot-Sample #....: D9K200620-005 Work Order #....: LPW421AA Matrix.....: WATER
 Date Sampled....: 11/18/09 12:25 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/05/09
 Prep Batch #....: 9327211 Analysis Time...: 02:38
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.025	0.020	ug/L	0.013

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	85	(60 - 155)
13C4 PFOS	47	(45 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-05

HPLC

Lot-Sample #....: D9K200620-005 Work Order #....: LPW421AC Matrix.....: WATER
Date Sampled....: 11/18/09 12:25 Date Received...: 11/20/09
Prep Date.....: 11/24/09 Analysis Date...: 12/01/09
Prep Batch #....: 9328466 Analysis Time...: 13:05
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOSA	46	(37 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-05

HPLC

Lot-Sample #....: D9K200620-005 Work Order #....: LPW422AA Matrix.....: WATER
 Date Sampled....: 11/18/09 12:25 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/24/09
 Prep Batch #....: 9327211 Analysis Time...: 06:57
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	117	(60 - 155)
13C4 PFOS	71	(45 - 130)
13C4 PFBA	119	(36 - 130)
13C2 PFHxA	122	(55 - 135)
18O2 PFHxS	112	(61 - 130)
13C5 PFNA	87	(54 - 132)
13C2 PFDA	66	(53 - 130)
13C2 PFUnA	57	(37 - 130)
13C2 PFDoA	53	(26 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-06

HPLC

Lot-Sample #....: D9K200620-006 Work Order #....: LPW441AA Matrix.....: WATER
 Date Sampled....: 11/18/09 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/05/09
 Prep Batch #....: 9327211 Analysis Time...: 02:43
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.025	0.020	ug/L	0.013

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	85	(60 - 155)
13C4 PFOS	50	(45 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-06

HPLC

Lot-Sample #....: D9K200620-006 Work Order #....: LPW441AC Matrix.....: WATER
Date Sampled....: 11/18/09 Date Received...: 11/20/09
Prep Date.....: 11/24/09 Analysis Date...: 12/01/09
Prep Batch #....: 9328466 Analysis Time...: 13:10
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOSA	53	(37 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-06

HPLC

Lot-Sample #....: D9K200620-006
Date Sampled....: 11/18/09
Prep Date.....: 11/23/09
Prep Batch #....: 9327211
Dilution Factor: 1

Work Order #....: LPW442AA
Date Received...: 11/20/09
Analysis Date...: 12/24/09
Analysis Time...: 07:12

Matrix.....: WATER

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT	
	RECOVERY	RECOVERY LIMITS
13C4 PFOA	119	(60 - 155)
13C4 PFOS	73	(45 - 130)
13C4 PFBA	114	(36 - 130)
13C2 PFHxA	112	(55 - 135)
18O2 PFHxS	103	(61 - 130)
13C5 PFNA	85	(54 - 132)
13C2 PFDA	69	(53 - 130)
13C2 PFUnA	62	(37 - 130)
13C2 PFDoA	57	(26 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-07

HPLC

Lot-Sample #....: D9K200620-007 Work Order #....: LPW461AA Matrix.....: WATER
 Date Sampled....: 11/18/09 12:42 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/05/09
 Prep Batch #....: 9327211 Analysis Time...: 02:53
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	0.012 J	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.031	0.020	ug/L	0.013

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	92	(60 - 155)
13C4 PFOS	51	(45 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: 11-18-09-07

HPLC

Lot-Sample #....: D9K200620-007 Work Order #....: LPW461AC Matrix.....: WATER
Date Sampled....: 11/18/09 12:42 Date Received...: 11/20/09
Prep Date.....: 11/24/09 Analysis Date...: 12/01/09
Prep Batch #....: 9328466 Analysis Time...: 13:15
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	48	(37 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-07

HPLC

Lot-Sample #....: D9K200620-007 Work Order #....: LPW462AA Matrix.....: WATER
 Date Sampled....: 11/18/09 12:42 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/24/09
 Prep Batch #....: 9327211 Analysis Time...: 07:27
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.0037 J	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	106	(60 - 155)
13C4 PFOS	67	(45 - 130)
13C4 PFBA	111	(36 - 130)
13C2 PFHxA	105	(55 - 135)
18O2 PFHxS	100	(61 - 130)
13C5 PFNA	83	(54 - 132)
13C2 PFDA	61	(53 - 130)
13C2 PFUnA	55	(37 - 130)
13C2 PFDoA	50	(26 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: 11-18-09-08

HPLC

Lot-Sample #....: D9K200620-008 Work Order #....: LPW471AA Matrix.....: WATER
 Date Sampled....: 11/18/09 13:04 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/05/09
 Prep Batch #....: 9327211 Analysis Time...: 02:58
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Perfluorooctanoic Acid	0.10	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.072	0.020	ug/L	0.013
SURROGATE	PERCENT		RECOVERY	
	RECOVERY		LIMITS	
13C4 PFOA	90		(60 - 155)	
13C4 PFOS	54		(45 - 130)	

Dalton Utilities

Client Sample ID: 11-18-09-08

HPLC

Lot-Sample #....: D9K200620-008 Work Order #....: LPW471AC Matrix.....: WATER
 Date Sampled....: 11/18/09 13:04 Date Received...: 11/20/09
 Prep Date.....: 11/24/09 Analysis Date...: 12/01/09
 Prep Batch #....: 9328466 Analysis Time...: 13:20
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	51	(37 - 130)

Dalton Utilities

Client Sample ID: 11-18-09-08

HPLC

Lot-Sample #....: D9K200620-008 Work Order #....: LPW472AA Matrix.....: WATER
 Date Sampled....: 11/18/09 13:04 Date Received...: 11/20/09
 Prep Date.....: 11/23/09 Analysis Date...: 12/24/09
 Prep Batch #....: 9327211 Analysis Time...: 07:42
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorobutanoic acid (PFBA)	0.013 J	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	0.039	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.049	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	0.038	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
)				
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
)				
Perfluorobutane sulfonate (PFBS)	0.030	0.020	ug/L	0.0082
)				
Perfluorohexane sulfonate (PFHxS)	0.041	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	99	(60 - 155)
13C4 PFOS	66	(45 - 130)
13C4 PFBA	102	(36 - 130)
13C2 PFHxA	99	(55 - 135)
18O2 PFHxS	94	(61 - 130)
13C5 PFNA	81	(54 - 132)
13C2 PFDA	57	(53 - 130)
13C2 PFUnA	41	(37 - 130)
13C2 PFDoA	33	(26 - 130)

NOTE(S):

J Estimated result. Result is less than RL.



TestAmerica

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TestAmerica Laboratories, Inc.

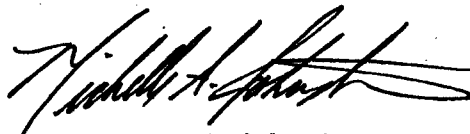
ANALYTICAL REPORT

Perfluorocarbon (PFC) Analysis

Lot #: D9L180621

Dena Haverland

Dalton Utilities
1200 V.D. Parrot Jr. Parkway
Dalton, GA 30721



Michelle A. Johnston
Project Manager

January 19, 2010

Case Narrative

D9L180621

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

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Sample Arrival and Receipt

The following report contains the analytical results for two samples received at TestAmerica Denver on December 18, 2009, according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 2.2°C. No anomalies were encountered during sample receipt.

Standards

Analytical standards were prepared using commercially available certified solutions containing all compounds of interest.

The mass labeled compounds 13C4 PFBA, 13C2 PFHxA, 18O2 PFHxS, 13C4 PFOA, 13C4 PFOS, 13C5 PFNA, 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, and D3 MeFOSA were introduced at the extraction step and were used for internal standards for the quantitation of the target compounds.

Sample Extraction and Analysis

The samples presented in this report were extracted for the target analytes by TestAmerica Denver's Standard Operating Procedure (SOP) DV-OP-0019 and analyzed for the target analytes by TestAmerica Denver's SOP DV-LC-0012.

Method QC Samples

The Method Blank is processed reagent water spiked with internal standard and prepared with each batch of 20 samples of the same matrix. The method blanks were non-detect at the reporting limits for the target analytes.

Each batch is prepared with low and mid level Laboratory Control Samples (LCS). The LCS recoveries for both levels were within established control limits, with the exception of the items noted in section Analytical Comments.

Analytical Comments

The Standard Operating Procedure (SOP) was altered slightly in the sample preparation for FOSA. Sodium hydroxide was added to both samples to obtain a pH of 12 instead of the SOP required <2. The basic pH is generating better internal standard recoveries for MeFOSA.

The low-level LCS associated with QC batch 9357104 exhibited percent recoveries below the QC control limits for Perfluorobutanoic acid (PFBA), Perfluorohexanoic acid (PFHxA), Perfluoroundecanoic acid (PFUnA), and Perfluorohexane sulfonate (PFHxS). This is an indicator that data may be biased low. The mid-level LCS/LCSD were within control limits and the low bias is not significant enough to impact the ability for the laboratory to detect at the reporting limits; therefore, corrective action is deemed unnecessary.

Due to a limitation in the LIMS system, the low-level LCS associated with QC batch 9357104 reported the percent recoveries for several PFCs as 0.0%. These compounds were recovered within the control limits except for PFNA, PFDoA, PFTrIA, and PFTeA, as outlined below.

Compound	Low-Level LCS Actual Recovery	Control Limits	Low-Level LCS Actual Result	MDL
PFNA	67%	74-138%	0.01335 ug/kg	0.500 ug/kg
PFDoA	43%	60-154%	0.00868 ug/kg	0.819 ug/kg
PFTrIA	39%	44-164%	0.00775 ug/kg	1.15 ug/kg
PFTeA	44%	47-172%	0.00878 ug/kg	1.45 ug/kg

As the compounds were detected below the Method Detection Limits (MDL), the system reports the percent recoveries as 0.0%. Please note PFDS is not a target compound for this project.

The method required MS/MSD could not be performed for QC batches 9357104 and 9357106, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable low-level LCS and mid-level LCS/LCSD analyses data.

The Standard Operating Procedure (SOP) was altered slightly for these samples in the sample prep and LC conditions. The alterations are listed below.

Solvents are now the same as they were in the original SOP and run per the following gradient: From 0 to 11 minutes, the flow rate is 0.4 mL/minute and the MeOH ramps up from 25% to 100%. From 11 to 11.01 minutes, the flow rate increases to 0.7 mL/minute and this flow is diverted from the MS. At 13 minutes the flow rate decreases back down to 0.4 mL/minute and 25% MeOH. The column then equilibrates to 14 minutes.

PFTrIA and PFTeA now use 13C2 PFUnA as their internal standard instead of 13C2 PFDoA.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9L180621

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
175 HARRISON LANE 12/16/09 11:33 002				
Perfluoropentanoic acid (PFPA)	0.013 J	0.030	ug/L	DEN -LC-0012
Perfluorohexane sulfonate (PFH	0.015 J	0.030	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.014 J	0.020	ug/L	DEN -LC-0012
Perfluorobutane sulfonate (PFB	0.019 J	0.020	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	0.015 J	0.020	ug/L	DEN -LC-0012

METHODS SUMMARY

D9L180621

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
LC/MS/MS PFCs	DEN -LC-0012	SW846 FOSA spec

References:

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

METHOD / ANALYST SUMMARY

D9L180621

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
DEN -LC-0012	Teresa L. Williams	002510

References:

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

SAMPLE SUMMARY

D9L180621

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LRDKT	001	743 ARTIS CHARLES RD	12/16/09	11:05
LRDKV	002	175 HARRISON LANE	12/16/09	11:33

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Dalton Utilities

Client Sample ID: 743 ARTIS CHARLES RD

HPLC

Lot-Sample #....: D9L180621-001 Work Order #....: LRDKT1AA Matrix.....: WATER
 Date Sampled....: 12/16/09 11:05 Date Received...: 12/18/09
 Prep Date.....: 12/23/09 Analysis Date...: 01/09/10
 Prep Batch #....: 9357104 Analysis Time...: 06:56
 Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluoroheptanoic acid (PFHpA)	ND	0.030	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.040	ug/L	0.017
Perfluorododecanoic acid (PFDoA)	ND	0.030	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.040	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.030	ug/L	0.015
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
S)				
Perfluorooctanesulfonate	ND	0.030	ug/L	0.013
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	108	(60 - 155)
13C4 PFOS	60	(45 - 130)
13C4 PFBA	113	(36 - 130)
13C2 PFHxA	111	(55 - 135)
18O2 PFHxS	99	(61 - 130)
13C5 PFNA	84	(54 - 132)
13C2 PFDA	53	(53 - 130)
13C2 PFUnA	46	(37 - 130)
13C2 PFDoA	47	(26 - 130)

Dalton Utilities

Client Sample ID: 743 ARTIS CHARLES RD

HPLC

Lot-Sample #....: D9L180621-001 Work Order #....: LRDKT1AC Matrix.....: WATER
 Date Sampled....: 12/16/09 11:05 Date Received...: 12/18/09
 Prep Date.....: 12/23/09 Analysis Date...: 12/30/09
 Prep Batch #....: 9357106 Analysis Time...: 18:02
 Dilution Factor: 1
 Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	48	(37 - 130)

Dalton Utilities

Client Sample ID: 175 HARRISON LANE

HPLC

Lot-Sample #....: D9L180621-002 **Work Order #....:** LRDKV1AA **Matrix.....:** WATER
Date Sampled....: 12/16/09 11:33 **Date Received...:** 12/18/09
Prep Date.....: 12/23/09 **Analysis Date...:** 01/09/10
Prep Batch #....: 9357104 **Analysis Time...:** 07:11
Dilution Factor: 1
Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Perfluoroheptanoic acid (PFHpA)	ND	0.030	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.040	ug/L	0.017
Perfluorododecanoic acid (PFDoA)	ND	0.030	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.040	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.030	ug/L	0.015
Perfluoropentanoic acid (PFPA)	0.013 J	0.030	ug/L	0.011
Perfluorohexane sulfonate (PFHxS)	0.015 J	0.030	ug/L	0.0070
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluorohexanoic acid (PFHxA)	0.014 J	0.020	ug/L	0.0029
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorobutane sulfonate (PFBS)	0.019 J	0.020	ug/L	0.0082
Perfluorooctanesulfonate	ND	0.030	ug/L	0.013
Perfluorooctanoic Acid	0.015 J	0.020	ug/L	0.0098

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
13C4 PFOA	108	(60 - 155)
13C4 PFOS	61	(45 - 130)
13C4 PFBA	110	(36 - 130)
13C2 PFHxA	110	(55 - 135)
1802 PFHxS	95	(61 - 130)
13C5 PFNA	82	(54 - 132)
13C2 PFDA	63	(53 - 130)
13C2 PFUnA	56	(37 - 130)
13C2 PFDoA	55	(26 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: 175 HARRISON LANE

HPLC

Lot-Sample #....: D9L180621-002 Work Order #....: LRDKVIAC Matrix.....: WATER
Date Sampled....: 12/16/09 11:33 Date Received...: 12/18/09
Prep Date.....: 12/23/09 Analysis Date...: 12/30/09
Prep Batch #....: 9357106 Analysis Time...: 18:07
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOA	48	(37 - 130)

ALSTON & BIRD LLP

One Atlantic Center
1201 West Peachtree Street
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Lee A. DeHihns, III

Direct Dial: 404-881-7151

E-mail: lee.dehnhns@alston.com

July 7, 2010

VIA UPS OVERNIGHT DELIVERY

Gail Mitchell, Deputy Director
Water Protection Division
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

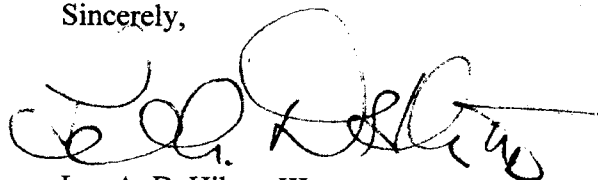
**Re: October 6, 2009, Information Request – Section 308 of the Clean
Water Act - Dalton Utilities Land Application System**

Dear Ms. Mitchell:

This letter provides information from Dalton Utilities in connection with its ongoing responses to EPA's October 6, 2009, Section 308 of the Clean Water Act request (the "Request") addressed to Mr. Don Cope, President and CEO of Dalton Utilities. The enclosures are a letter and report dated July 6, 2010, with a certification signed pursuant to the Request in response to Paragraph 2 of Enclosure A of the Request, the final **Private Drinking Water Well Monitoring Report**.

Please contact me if have any questions regarding the information supplied pursuant to the Request.

Sincerely,



Lee A. DeHihns, III

LAD:gba
Enclosures

LEGAL02/31578197v20

2010 JUL - 9 A 9:29



2010 JUL -9 A 9:29

July 6, 2010

Ms. Gail Mitchell, Deputy Director
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Information Request Pursuant to Section 308 of the Clean Water Act
Analytical Sample Results

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting the final analytical results received for the sampling conducted as outlined in Dalton Utilities Private Drinking Water Well Monitoring Report. The results are contained in Attachment A which is provided herein as a bound report titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Job # 280-3824-1 which contains 758 pages.

As noted in the aforementioned 308 letter, Dalton Utilities Private Drinking Water Well Monitoring Report, and Dalton Utilities correspondence to you dated April 30, 2010, the attached analytical report is for the final sampling of these private drinking water wells with the exception of one location.

As indicated in the attached report, one sample had several internal laboratory standard recoveries that were outside of the laboratory's acceptable range. As such, the sample results for the private well located at 705 Peek Road are not consistent with the analytical results previously reported for this location. Due to this abnormality, this location was re-sampled and the final analytical report for this re-sample will be submitted to you as appropriate after receipt.

If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

Ms. Gail Mitchell
July 6, 2010
Page 2 of 2

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,



Don Cope
President & CEO

Attachment

- c: Mr. Allen Barnes, Georgia Environmental Protection Division (cover letter only)
Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural Resources (cover letter only)
Dr. Becky Champion, Georgia Environmental Protection Division (cover letter only)
Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
Lee A. DeHihns, Esq.

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November 13, 2009

VIA UPS OVERNIGHT

Gail Mitchell, Deputy Director
Water Protection Division
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

**Re: October 6, 2009, Information Request – Section 308 of the Clean
Water Act - Dalton Utilities Land Application System**

Dear Ms. Mitchell:

Enclosed with this letter is information from Dalton Utilities in response to EPA's October 6, 2009, Section 308 of the Clean Water Act request (the "Request") addressed to Mr. Don Cope, President and CEO of Dalton Utilities. The enclosures are a letter dated November 12, 2009, with certification signed pursuant to the Request and information responsive to Paragraph 2 of Enclosure A, final **Private Drinking Water Well Survey Results**.

Please contact me if have any questions regarding the information supplied pursuant to the Request.

Sincerely,



Lee A. DeHihns, III

LAD:gba
Enclosures

LEGAL02/31578197v5



November 12, 2009

Ms. Gail Mitchell, Deputy Director
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Private Drinking Water Well Survey Results

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting the final analytical results received for the Private Drinking Water Well Survey. The results are contained in Attachment A which is provided herein as bound reports titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Lot # D9I180169 which contains 719 pages.

As stipulated in the aforementioned 308 letter, Dalton Utilities will provide additional results on the private drinking water well survey within five days of receiving the final analytical reports.

If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false

Ms. Gail Mitchell
November 12, 2009
Page 2 of 2

information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Cope", with a long horizontal flourish extending to the right.

Don Cope
President & CEO

Attachment

- c: Mr. Allen Barnes, Georgia Environmental Protection Division (cover letter only)
Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural Resources (cover letter only)
Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
Lee A. DeHihns, Esq.



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.


ANALYTICAL REPORT

Perfluorocarbon (PFC) Analysis

Lot #: D9I180169

Dena Haverland

Dalton Utilities
1200 V.D. Parrot Jr. Parkway
Dalton, GA 30721


for: Michelle A. Johnston
Project Manager

October 21, 2009

Case Narrative

D9I180169

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Sample Arrival and Receipt

The following report contains the analytical results for nineteen samples received at TestAmerica Denver on September 18, 2009, according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 3.6°C.

No anomalies were encountered during sample receipt.

Standards

Analytical standards were prepared using commercially available certified solutions containing all compounds of interest.

The mass labeled compounds 13C4 PFBA, 13C2 PFHxA, 18O2 PFHxS, 13C4 PFOA, 13C4 PFOS, 13C5 PFNA, 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, and D3 MeFOSA were introduced at the extraction step and were used for internal standards for the quantitation of the target compounds.

Sample Extraction and Analysis

The samples presented in this report were extracted for the target analytes by TestAmerica Denver's Standard Operating Procedure (SOP) DV-OP-0019 and analyzed for the target analytes by TestAmerica Denver's SOP DV-LC-0012.

Method QC Samples

The Method Blank is processed reagent water spiked with internal standard and prepared with each batch of 20 samples of the same matrix. The method blanks were non-detect at the reporting limits for the target analytes.

Each batch is prepared with low and mid level Laboratory Control Samples (LCS). The LCS recoveries for both levels were within established control limits, with the exception of the items noted in section Analytical Comments.

Analytical Comments

The organic preparation chemist noted that the following samples nearly clogged the extraction cartridge during the FOSA extraction process associated with QC batch 9264543: #100 366

Lot #: D9I180169

KIRBY YOUNG RD, #103 9458 HWY 225, #106 383 CENTER HILL CHURCH RD, #107 440 FOX BRIDGE RD, #108 378 FOX BRIDGE RD, #112 240 MATLOCK RD and DUP.

The Standard Operating Procedure (SOP) was altered slightly in the sample preparation for FOSA. Sodium hydroxide was added to all nineteen samples to obtain a pH of 14 instead of the SOP required <2. The basic pH is generating better internal standard recoveries for MeFOSA.

Due to low internal standard recoveries in samples in QC batch 9263042, samples #102 9532 HWY 225, #104 1585 CAGLE RD, #107 440 FOX BRIDGE RD, #112 240 MATLOCK RD and DUP #3 were re-extracted out of the laboratory prescribed hold time and reanalyzed in QC batches 9267578 and 9273458. Both batches are included in this report. Please note the sample results should be considered estimated.

Due to low internal standard recoveries in samples in QC batch 9264543, samples #104 1585 CAGLE RD, #106 383 CENTER HILL CHURCH RD and DUP #4 were re-extracted out of the laboratory prescribed hold time and reanalyzed in QC batch 9269080. Both batches are included in this report. Please note the sample results should be considered estimated.

The internal standard recoveries for 13C2 PFUnA and 13C2 PFDoA associated with QC batch 9263042 were recovered below 50% in samples #102 9532 HWY 225, #104 1585 CAGLE RD, #107 440 FOX BRIDGE RD, #112 240 MATLOCK RD and DUP #3. This is an indicator that data may be biased high. Upon re-extraction and reanalysis in QC batches 9267578 and 9273458, internal standard recoveries were 100% in control. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time.

The internal standard recoveries for MeFOSA associated with QC batch 9264543 were recovered below 50% in samples #104 1585 CAGLE RD and #106 383 CENTER HILL CHURCH RD. This is an indicator that data may be biased high. Upon re-extraction and reanalysis in QC batch 9269080, internal standard recoveries were 100% in control. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time.

The internal standard recovery for MeFOSA associated with QC batch 9264543 was recovered below 50% in sample DUP #4. This is an indicator that data may be biased high. Upon re-extraction and reanalysis in QC batch 9269080, the internal standard recovery was still recovered below QC limits in sample DUP #4. In addition, the organic preparation chemist noted that sample DUP #4 required two cartridges for extraction, as the first cartridge clogged. Only the original data has been reported as the internal standard failure is most likely due to matrix interference.

A low level of Perfluorohexanoic acid (PFHxA) is present in the method blank associated with QC batch 9267578. The concentration in the method blank is not present at a level greater than the reporting limit; therefore, corrective action is deemed unnecessary.

Due to a limitation in the LIMS system, the low-level LCS associated with QC batch 9273458 reported the percent recovery for Perfluorododecanoic Acid (PFDoA) as 0.0%. PFDoA was recovered within the control limits (50-150%) at 65%. As the compound was detected below

Lot #: D9I180169

the Method Detection Limit (MDL) of 0.020 ug/L, the system reports the percent recoveries as 0.0%.

The mid-level LCS analysis associated with QC batch 9264543 exhibited a percent recovery above the QC control limits for FOSA. This is an indicator that data may be biased high. As no detectable concentrations of FOSA are present in the associated samples, corrective action is deemed unnecessary.

The method required MS/MSD could not be performed for QC batches 9263042, 9267578, 9264543 and 9269080, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable low-level LCS and mid-level LCS/LCSD analyses data.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D91180169

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
#99 743 ARTIS CHARLES RD 09/16/09 15:15 002				
Perfluorobutanoic acid (PFBA)	0.032	0.020	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.024	0.020	ug/L	DEN -LC-0012
#104 1585 CAGLE RD 09/16/09 17:59 007				
Perfluorooctanoic Acid	0.017 J	0.020	ug/L	DEN -LC-0012
Perfluorobutanoic acid (PFBA)	0.011 J	0.020	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.0096 J	0.020	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.0049 J	0.020	ug/L	DEN -LC-0012
#111 705 PEEK RD 09/17/09 14:48 014				
Perfluorooctanoic Acid	0.084	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.056	0.020	ug/L	DEN -LC-0012
Perfluorobutanoic acid (PFBA)	0.017 J	0.020	ug/L	DEN -LC-0012
Perfluoropentanoic acid (PFPA)	0.035	0.030	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.061	0.020	ug/L	DEN -LC-0012
Perfluoroheptanoic acid (PFHpA)	0.040	0.020	ug/L	DEN -LC-0012
Perfluorobutane sulfonate (PFB)	0.037	0.020	ug/L	DEN -LC-0012
Perfluorohexane sulfonate (PFH)	0.056	0.030	ug/L	DEN -LC-0012
DUP #3 09/17/09 018				
Perfluorooctanoic Acid	0.089	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.062	0.020	ug/L	DEN -LC-0012
Perfluorobutanoic acid (PFBA)	0.017 J	0.020	ug/L	DEN -LC-0012
Perfluoropentanoic acid (PFPA)	0.039	0.030	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.065	0.020	ug/L	DEN -LC-0012
Perfluoroheptanoic acid (PFHpA)	0.047	0.020	ug/L	DEN -LC-0012
Perfluorobutane sulfonate (PFB)	0.038	0.020	ug/L	DEN -LC-0012
Perfluorohexane sulfonate (PFH)	0.068	0.030	ug/L	DEN -LC-0012
Perfluorooctanoic Acid	0.072	0.020	ug/L	DEN -LC-0012
Perfluorooctanesulfonate	0.057	0.020	ug/L	DEN -LC-0012
Perfluorobutanoic acid (PFBA)	0.021	0.020	ug/L	DEN -LC-0012
Perfluoropentanoic acid (PFPA)	0.039	0.030	ug/L	DEN -LC-0012
Perfluorohexanoic acid (PFHxA)	0.061 B	0.020	ug/L	DEN -LC-0012
Perfluoroheptanoic acid (PFHpA)	0.050	0.020	ug/L	DEN -LC-0012
Perfluorobutane sulfonate (PFB)	0.043	0.020	ug/L	DEN -LC-0012
Perfluorohexane sulfonate (PFH)	0.070	0.030	ug/L	DEN -LC-0012

METHODS SUMMARY

D9I180169

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
LC/MS/MS PFCs	DEN -LC-0012	SW846 FOSA spec

References:

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

METHOD / ANALYST SUMMARY

D9I180169

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
DEN -LC-0012	Jacqueline Bonnett	003601

References:

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

SAMPLE SUMMARY

D9I180169

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LK29H	001	#98 1258 MILLER RD	09/16/09	13:57
LK29X	002	#99 743 ARTIS CHARLES RD	09/16/09	15:15
LK291	003	#100 366 KIRBY YOUNG RD	09/16/09	15:42
LK295	004	#101 301 BUFORD RIDLEY RD	09/16/09	16:04
LK3AA	005	#102 9532 HWY 225	09/16/09	16:43
LK3AE	006	#103 9458 HWY 225	09/16/09	17:14
LK3AM	007	#104 1585 CAGLE RD	09/16/09	17:59
LK3AT	008	#105 4249 HWY 225	09/16/09	18:45
LK3A4	009	#106 383 CENTER HILL CHURCH RD	09/16/09	18:59
LK3A6	010	#107 440 FOX BRIDGE RD	09/16/09	19:39
LK3CD	011	#108 378 FOX BRIDGE RD	09/16/09	19:57
LK3CG	012	#109 149 EDD RIDLEY RD	09/16/09	20:11
LK3CL	013	#110 85 MEADOW RD	09/16/09	20:28
LK3CR	014	#111 705 PEEK RD	09/17/09	14:48
LK3CX	015	#112 240 MATLOCK RD	09/17/09	15:19
LK3DD	016	DUP	09/16/09	
LK3DL	017	DUP #2	09/17/09	
LK3DQ	018	DUP #3	09/17/09	
LK3DR	019	DUP #4	09/17/09	

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Dalton Utilities

Client Sample ID: #98 1258 MILLER RD

HPLC

Lot-Sample #....: D9I180169-001 Work Order #....: LK29H1AA Matrix.....: WATER
 Date Sampled....: 09/16/09 13:57 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 04:10
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	110	(50 - 200)
13C4 PFOS	69	(50 - 200)
13C4 PFBA	95	(50 - 200)
13C2 PFHxA	108	(50 - 200)
18O2 PFHxS	97	(50 - 200)
13C5 PFNA	86	(50 - 200)
13C2 PFDA	70	(50 - 200)
13C2 PFUnA	62	(50 - 200)
13C2 PFDoA	65	(50 - 200)

Dalton Utilities

Client Sample ID: #98 1258 MILLER RD

HPLC

Lot-Sample #....: D9I180169-001 Work Order #....: LK29H1AC Matrix.....: WATER
 Date Sampled...: 09/16/09 13:57 Date Received...: 09/18/09
 Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
 Prep Batch #....: 9264543 Analysis Time...: 00:17
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	66	(50 - 200)

Dalton Utilities

Client Sample ID: #99 743 ARTIS CHARLES RD

HPLC

Lot-Sample #....: D9I180169-002 **Work Order #....:** LK29X1AA **Matrix.....:** WATER
Date Sampled....: 09/16/09 15:15 **Date Received...:** 09/18/09
Prep Date.....: 09/20/09 **Analysis Date...:** 09/24/09
Prep Batch #....: 9263042 **Analysis Time...:** 04:26
Dilution Factor: 1
Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	0.032	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.024	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	114	(50 - 200)
13C4 PFOS	78	(50 - 200)
13C4 PFBA	97	(50 - 200)
13C2 PFHxA	107	(50 - 200)
18O2 PFHxS	99	(50 - 200)
13C5 PFNA	93	(50 - 200)
13C2 PFDA	78	(50 - 200)
13C2 PFUnA	73	(50 - 200)
13C2 PFDoA	70	(50 - 200)

Dalton Utilities

Client Sample ID: #99 743 ARTIS CHARLES RD

HPLC

Lot-Sample #....: D9I180169-002 Work Order #....: LK29X1AC Matrix.....: WATER
Date Sampled....: 09/16/09 15:15 Date Received...: 09/18/09
Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
Prep Batch #....: 9264543 Analysis Time...: 00:25
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	75	(50 - 200)

Dalton Utilities

Client Sample ID: #100 366 KIRBY YOUNG RD

HPLC

Lot-Sample #....: D9I180169-003 Work Order #....: LK2911AA Matrix.....: WATER
 Date Sampled....: 09/16/09 15:42 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 04:43
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTEA)	ND	0.020	ug/L	0.015
FTEA)				
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
S)				
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	116	(50 - 200)
13C4 PFOS	78	(50 - 200)
13C4 PFBA	99	(50 - 200)
13C2 PFHxA	112	(50 - 200)
18O2 PFHxS	103	(50 - 200)
13C5 PFNA	96	(50 - 200)
13C2 PFDA	77	(50 - 200)
13C2 PFUnA	73	(50 - 200)
13C2 PFDoA	71	(50 - 200)

Dalton Utilities

Client Sample ID: #100 366 KIRBY YOUNG RD

HPLC

Lot-Sample #....: D9I180169-003 Work Order #....: LK2911AC Matrix.....: WATER
 Date Sampled....: 09/16/09 15:42 Date Received...: 09/18/09
 Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
 Prep Batch #....: 9264543 Analysis Time...: 00:32
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOA	59	(50 - 200)

Dalton Utilities

Client Sample ID: #101 301 BUFORD RIDLEY RD

HPLC

Lot-Sample #....: D9I180169-004 Work Order #....: LK2951AA Matrix.....: WATER
 Date Sampled....: 09/16/09 16:04 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 04:59
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTEA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	116	(50 - 200)
13C4 PFOS	66	(50 - 200)
13C4 PFBA	98	(50 - 200)
13C2 PFHxA	108	(50 - 200)
18O2 PFHxS	96	(50 - 200)
13C5 PFNA	90	(50 - 200)
13C2 PFDA	62	(50 - 200)
13C2 PFUnA	53	(50 - 200)
13C2 PFDoA	51	(50 - 200)

Dalton Utilities

Client Sample ID: #101 301 BUFORD RIDLEY RD

HPLC

Lot-Sample #....: D9I180169-004 Work Order #....: LK2951AC Matrix.....: WATER
Date Sampled....: 09/16/09 16:04 Date Received...: 09/18/09
Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
Prep Batch #....: 9264543 Analysis Time...: 00:39
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	79	(50 - 200)

Dalton Utilities

Client Sample ID: #102 9532 HWY 225

HPLC

Lot-Sample #....: D9I180169-005 Work Order #....: LK3AA1AA Matrix.....: WATER
 Date Sampled....: 09/16/09 16:43 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 05:15
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	92	(50 - 200)
13C4 PFOS	53	(50 - 200)
13C4 PFBA	83	(50 - 200)
13C2 PFHxA	97	(50 - 200)
18O2 PFHxS	81	(50 - 200)
13C5 PFNA	76	(50 - 200)
13C2 PFDA	51	(50 - 200)
13C2 PFUnA	45 *	(50 - 200)
13C2 PFDoA	44 *	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: #102 9532 HWY 225

HPLC

Lot-Sample #....: D9I180169-005 Work Order #....: LK3AA1AC Matrix.....: WATER
Date Sampled....: 09/16/09 16:43 Date Received...: 09/18/09
Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
Prep Batch #....: 9264543 Analysis Time...: 00:53
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOA	71	(50 - 200)

Dalton Utilities

Client Sample ID: #102 9532 HWY 225

HPLC

Lot-Sample #....: D9I180169-005 Work Order #....: LK3AA2AA Matrix.....: WATER
 Date Sampled....: 09/16/09 16:43 Date Received...: 09/18/09
 Prep Date.....: 09/24/09 Analysis Date...: 09/28/09
 Prep Batch #....: 9267578 Analysis Time...: 03:46
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
FTeA)				
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
S)				
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070
xS)				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	114	(50 - 200)
13C4 PFOS	71	(50 - 200)
13C4 PFBA	72	(50 - 200)
13C2 PFHxA	104	(50 - 200)
18O2 PFHxS	80	(50 - 200)
13C5 PFNA	89	(50 - 200)
13C2 PFDA	78	(50 - 200)
13C2 PFUnA	62	(50 - 200)
13C2 PFDoA	71	(50 - 200)

Dalton Utilities

Client Sample ID: #103 9458 HWY 225

HPLC

Lot-Sample #....: D9I180169-006 **Work Order #....:** LK3AE1AA **Matrix.....:** WATER
Date Sampled....: 09/16/09 17:14 **Date Received...:** 09/18/09
Prep Date.....: 09/20/09 **Analysis Date...:** 09/24/09
Prep Batch #....: 9263042 **Analysis Time...:** 05:31
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
)				
Perfluorotridecanoic acid (PFTria)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	96	(50 - 200)
13C4 PFOS	60	(50 - 200)
13C4 PFBA	86	(50 - 200)
13C2 PFHxA	94	(50 - 200)
18O2 PFHxS	83	(50 - 200)
13C5 PFNA	78	(50 - 200)
13C2 PFDA	61	(50 - 200)
13C2 PFUnA	59	(50 - 200)
13C2 PFDoA	54	(50 - 200)

Dalton Utilities

Client Sample ID: #103 9458 HWY 225

HPLC

Lot-Sample #....: D9I180169-006 Work Order #....: LK3AE1AC Matrix.....: WATER
 Date Sampled....: 09/16/09 17:14 Date Received...: 09/18/09
 Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
 Prep Batch #....: 9264543 Analysis Time...: 01:00
 Dilution Factor: 1
 Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOA	71	(50 - 200)

Dalton Utilities

Client Sample ID: #104 1585 CAGLE RD

HPLC

Lot-Sample #....: D9I180169-007 **Work Order #....:** LK3AM1AA **Matrix.....:** WATER
Date Sampled....: 09/16/09 17:59 **Date Received...:** 09/18/09
Prep Date.....: 09/20/09 **Analysis Date...:** 09/24/09
Prep Batch #....: 9263042 **Analysis Time...:** 06:03
Dilution Factor: 1
Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	0.017 J	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	0.011 J	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.0096 J	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTEA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	91	(50 - 200)
13C4 PFOS	58	(50 - 200)
13C4 PFBA	83	(50 - 200)
13C2 PFHxA	91	(50 - 200)
18O2 PFHxS	80	(50 - 200)
13C5 PFNA	75	(50 - 200)
13C2 PFDA	55	(50 - 200)
13C2 PFUnA	48 *	(50 - 200)
13C2 PFDoA	46 *	(50 - 200)

NOTE(S):

- * Surrogate recovery is outside stated control limits.
- J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: #104 1585 CAGLE RD

HPLC

Lot-Sample #....: D9I180169-007 Work Order #....: LK3AM1AC Matrix.....: WATER
Date Sampled....: 09/16/09 17:59 Date Received...: 09/18/09
Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
Prep Batch #....: 9264543 Analysis Time...: 01:08
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
MeFOSA	48 *	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: #104 1585 CAGLE RD

HPLC

Lot-Sample #....: D9I180169-007 **Work Order #....:** LK3AM2AA **Matrix.....:** WATER
Date Sampled....: 09/16/09 17:59 **Date Received...:** 09/18/09
Prep Date.....: 09/30/09 **Analysis Date...:** 10/18/09
Prep Batch #....: 9273458 **Analysis Time...:** 02:48
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		
		<u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.0049 J	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
riA)				
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
FTeA)				
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
S)				
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070
xS)				

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	82	(50 - 200)
13C4 PFOS	72	(50 - 200)
13C4 PFBA	89	(50 - 200)
13C2 PFHxA	92	(50 - 200)
18O2 PFHxS	97	(50 - 200)
13C5 PFNA	90	(50 - 200)
13C2 PFDA	68	(50 - 200)
13C2 PFUnA	61	(50 - 200)
13C2 PFDoA	59	(50 - 200)

NOTE(S) :

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: #104 1585 CAGLE RD

HPLC

Lot-Sample #....: D9I180169-007 Work Order #....: LK3AM2AC Matrix.....: WATER
 Date Sampled....: 09/16/09 17:59 Date Received...: 09/18/09
 Prep Date.....: 09/26/09 Analysis Date...: 09/27/09
 Prep Batch #....: 9269080 Analysis Time...: 18:42
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	68	(50 - 200)

Dalton Utilities

Client Sample ID: #105 4249 HWY 225

HPLC

Lot-Sample #....: D9I180169-008 **Work Order #....:** LK3AT1AA **Matrix.....:** WATER
Date Sampled....: 09/16/09 18:45 **Date Received...:** 09/18/09
Prep Date.....: 09/20/09 **Analysis Date...:** 09/24/09
Prep Batch #....: 9263042 **Analysis Time...:** 06:19
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	98	(50 - 200)
13C4 PFOS	58	(50 - 200)
13C4 PFBA	84	(50 - 200)
13C2 PFHxA	92	(50 - 200)
18O2 PFHxS	83	(50 - 200)
13C5 PFNA	73	(50 - 200)
13C2 PFDA	56	(50 - 200)
13C2 PFUnA	53	(50 - 200)
13C2 PFDoA	52	(50 - 200)

Dalton Utilities

Client Sample ID: #105 4249 HWY 225

HPLC

Lot-Sample #....: D9I180169-008 Work Order #....: LK3AT1AC Matrix.....: WATER
 Date Sampled....: 09/16/09 18:45 Date Received...: 09/18/09
 Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
 Prep Batch #....: 9264543 Analysis Time...: 01:15
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	51	(50 - 200)

Dalton Utilities

Client Sample ID: #106 383 CENTER HILL CHURCH RD

HPLC

Lot-Sample #....: D9I180169-009 Work Order #....: LK3A41AA Matrix.....: WATER
 Date Sampled....: 09/16/09 18:59 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 06:35
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	88	(50 - 200)
13C4 PFOS	54	(50 - 200)
13C4 PFBA	84	(50 - 200)
13C2 PFHxA	90	(50 - 200)
18O2 PFHxS	79	(50 - 200)
13C5 PFNA	71	(50 - 200)
13C2 PFDA	57	(50 - 200)
13C2 PFUnA	51	(50 - 200)
13C2 PFDoA	53	(50 - 200)

Dalton Utilities

Client Sample ID: #106 383 CENTER HILL CHURCH RD

HPLC

Lot-Sample #....: D9I180169-009 Work Order #....: LK3A41AC Matrix.....: WATER
Date Sampled....: 09/16/09 18:59 Date Received...: 09/18/09
Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
Prep Batch #....: 9264543 Analysis Time...: 01:22
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	41 *	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: #106 383 CENTER HILL CHURCH RD

HPLC

Lot-Sample #....: D9I180169-009 Work Order #....: LK3A42AC Matrix.....: WATER
Date Sampled....: 09/16/09 18:59 Date Received...: 09/18/09
Prep Date.....: 09/26/09 Analysis Date...: 09/27/09
Prep Batch #....: 9269080 Analysis Time...: 18:49
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	65	(50 - 200)

Dalton Utilities

Client Sample ID: #107 440 FOX BRIDGE RD

HPLC

Lot-Sample #....: D9I180169-010 Work Order #....: LK3A61AA Matrix.....: WATER
 Date Sampled....: 09/16/09 19:39 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 06:51
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	102	(50 - 200)
13C4 PFOS	58	(50 - 200)
13C4 PFBA	86	(50 - 200)
13C2 PFHxA	91	(50 - 200)
18O2 PFHxS	86	(50 - 200)
13C5 PFNA	77	(50 - 200)
13C2 PFDA	55	(50 - 200)
13C2 PFUnA	48 *	(50 - 200)
13C2 PFDoA	46 *	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: #107 440 FOX BRIDGE RD

HPLC

Lot-Sample #....: D9I180169-010 Work Order #....: LK3A61AC Matrix.....: WATER
Date Sampled....: 09/16/09 19:39 Date Received...: 09/18/09
Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
Prep Batch #....: 9264543 Analysis Time...: 01:29
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
MeFOSA	60	(50 - 200)

Dalton Utilities

Client Sample ID: #107 440 FOX BRIDGE RD

HPLC

Lot-Sample #....: D9I180169-010 Work Order #....: LK3A62AA Matrix.....: WATER
 Date Sampled....: 09/16/09 19:39 Date Received...: 09/18/09
 Prep Date.....: 09/24/09 Analysis Date...: 09/28/09
 Prep Batch #....: 9267578 Analysis Time...: 04:02
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTEA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	103	(50 - 200)
13C4 PFOS	63	(50 - 200)
13C4 PFBA	74	(50 - 200)
13C2 PFHxA	97	(50 - 200)
18O2 PFHxS	77	(50 - 200)
13C5 PFNA	79	(50 - 200)
13C2 PFDA	66	(50 - 200)
13C2 PFUnA	56	(50 - 200)
13C2 PFDoA	63	(50 - 200)

Dalton Utilities

Client Sample ID: #108 378 FOX BRIDGE RD

HPLC

Lot-Sample #....: D9I180169-011 Work Order #....: LK3CD1AA
 Date Sampled....: 09/16/09 19:57 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 07:07
 Dilution Factor: 1

Matrix.....: WATER

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	112	(50 - 200)
13C4 PFOS	65	(50 - 200)
13C4 PFBA	98	(50 - 200)
13C2 PFHxA	110	(50 - 200)
18O2 PFHxS	95	(50 - 200)
13C5 PFNA	84	(50 - 200)
13C2 PFDA	64	(50 - 200)
13C2 PFUnA	60	(50 - 200)
13C2 PFDoA	56	(50 - 200)

Dalton Utilities

Client Sample ID: #108 378 FOX BRIDGE RD

HPLC

Lot-Sample #....: D9I180169-011 Work Order #....: LK3CD1AC Matrix.....: WATER
 Date Sampled....: 09/16/09 19:57 Date Received...: 09/18/09
 Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
 Prep Batch #....: 9264543 Analysis Time...: 01:36
 Dilution Factor: 1 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	66	(50 - 200)

Dalton Utilities

Client Sample ID: #109 149 EDD RIDLEY RD

HPLC

Lot-Sample #....: D9I180169-012 Work Order #....: LK3CG1AA Matrix.....: WATER
 Date Sampled....: 09/16/09 20:11 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 07:23
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	110	(50 - 200)
13C4 PFOS	64	(50 - 200)
13C4 PFBA	97	(50 - 200)
13C2 PFHxA	104	(50 - 200)
18O2 PFHxS	94	(50 - 200)
13C5 PFNA	92	(50 - 200)
13C2 PFDA	67	(50 - 200)
13C2 PFUnA	53	(50 - 200)
13C2 PFDoA	54	(50 - 200)

Dalton Utilities

Client Sample ID: #109 149 EDD RIDLEY RD

HPLC

Lot-Sample #....: D9I180169-012 Work Order #....: LK3CG1AC Matrix.....: WATER
 Date Sampled....: 09/16/09 20:11 Date Received...: 09/18/09
 Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
 Prep Batch #....: 9264543 Analysis Time...: 01:43
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (P OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOA	64	(50 - 200)

Dalton Utilities

Client Sample ID: #110 85 MEADOW RD

HPLC

Lot-Sample #....: D9I180169-013 Work Order #....: LK3CL1AA
 Date Sampled....: 09/16/09 20:28 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 07:39
 Dilution Factor: 1

Matrix.....: WATER

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	104	(50 - 200)
13C4 PFOS	67	(50 - 200)
13C4 PFBA	98	(50 - 200)
13C2 PFHxA	106	(50 - 200)
18O2 PFHxS	96	(50 - 200)
13C5 PFNA	89	(50 - 200)
13C2 PFDA	65	(50 - 200)
13C2 PFUnA	58	(50 - 200)
13C2 PFDoA	58	(50 - 200)

Dalton Utilities

Client Sample ID: #110 85 MEADOW RD

HPLC

Lot-Sample #....: D9I180169-013 Work Order #....: LK3CL1AC Matrix.....: WATER
 Date Sampled....: 09/16/09 20:28 Date Received...: 09/18/09
 Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
 Prep Batch #....: 9264543 Analysis Time...: 01:58
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	58	(50 - 200)

Dalton Utilities

Client Sample ID: #111 705 PEEK RD

HPLC

Lot-Sample #....: D9I180169-014 Work Order #....: LK3CR1AA
 Date Sampled....: 09/17/09 14:48 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 08:12
 Dilution Factor: 1

Matrix.....: WATER

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	0.084	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.056	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	0.017 J	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	0.035	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.061	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	0.040	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	0.037	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	0.056	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	118	(50 - 200)
13C4 PFOS	78	(50 - 200)
13C4 PFBA	100	(50 - 200)
13C2 PFHxA	114	(50 - 200)
18O2 PFHxS	102	(50 - 200)
13C5 PFNA	95	(50 - 200)
13C2 PFDA	75	(50 - 200)
13C2 PFUnA	70	(50 - 200)
13C2 PFDoA	72	(50 - 200)

NOTE(S):

J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: #111 705 PEEK RD

HPLC

Lot-Sample #....: D9I180169-014 Work Order #....: LK3CR1AC Matrix.....: WATER
 Date Sampled....: 09/17/09 14:48 Date Received...: 09/18/09
 Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
 Prep Batch #....: 9264543 Analysis Time...: 02:05
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	68	(50 - 200)

Dalton Utilities

Client Sample ID: #112 240 MATLOCK RD

HPLC

Lot-Sample #....: D9I180169-015 Work Order #....: LK3CX1AA
 Date Sampled....: 09/17/09 15:19 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 08:28
 Dilution Factor: 1

Matrix.....: WATER

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTEA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	92	(50 - 200)
13C4 PFOS	53	(50 - 200)
13C4 PFBA	84	(50 - 200)
13C2 PFHxA	93	(50 - 200)
18O2 PFHxS	84	(50 - 200)
13C5 PFNA	71	(50 - 200)
13C2 PFDA	51	(50 - 200)
13C2 PFUnA	43 *	(50 - 200)
13C2 PFDoA	44 *	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: #112 240 MATLOCK RD

HPLC

Lot-Sample #....: D9I180169-015 Work Order #....: LK3CX1AC Matrix.....: WATER
 Date Sampled....: 09/17/09 15:19 Date Received...: 09/18/09
 Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
 Prep Batch #....: 9264543 Analysis Time...: 02:12
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	52	(50 - 200)

Dalton Utilities

Client Sample ID: #112 240 MATLOCK RD

HPLC

Lot-Sample #....: D9I180169-015 Work Order #....: LK3CX2AA
 Date Sampled....: 09/17/09 15:19 Date Received...: 09/18/09
 Prep Date.....: 09/24/09 Analysis Date...: 09/28/09
 Prep Batch #....: 9267578 Analysis Time...: 04:18
 Dilution Factor: 1

Matrix.....: WATER

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	121	(50 - 200)
13C4 PFOS	73	(50 - 200)
13C4 PFBA	78	(50 - 200)
13C2 PFHxA	109	(50 - 200)
18O2 PFHxS	87	(50 - 200)
13C5 PFNA	91	(50 - 200)
13C2 PFDA	80	(50 - 200)
13C2 PFUnA	61	(50 - 200)
13C2 PFDoA	72	(50 - 200)

Dalton Utilities

Client Sample ID: DUP

HPLC

Lot-Sample #....: D9I180169-016
Date Sampled....: 09/16/09
Prep Date.....: 09/20/09
Prep Batch #....: 9263042
Dilution Factor: 1

Work Order #....: LK3DD1AA
Date Received...: 09/18/09
Analysis Date...: 09/24/09
Analysis Time...: 08:44
Method.....: DEN -LC-0012

Matrix.....: WATER

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
FTeA)				
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
S)				
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070
xS)				

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
13C4 PFOA	96	(50 - 200)
13C4 PFOS	63	(50 - 200)
13C4 PFBA	82	(50 - 200)
13C2 PFHxA	91	(50 - 200)
18O2 PFHxS	81	(50 - 200)
13C5 PFNA	74	(50 - 200)
13C2 PFDA	58	(50 - 200)
13C2 PFUnA	59	(50 - 200)
13C2 PFDoA	56	(50 - 200)

Dalton Utilities

Client Sample ID: DUP

HPLC

Lot-Sample #....: D9I180169-016
Date Sampled....: 09/16/09
Prep Date.....: 09/21/09
Prep Batch #....: 9264543
Dilution Factor: 1

Work Order #....: LK3DD1AC
Date Received...: 09/18/09
Analysis Date...: 09/25/09
Analysis Time...: 02:19

Matrix.....: WATER

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	52	(50 - 200)

Dalton Utilities

Client Sample ID: DUP #2

HPLC

Lot-Sample #....: D9I180169-017 Work Order #....: LK3DL1AA Matrix.....: WATER
 Date Sampled....: 09/17/09 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 09:00
 Dilution Factor: 1 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
ria)				
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
FTeA)				
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
S)				
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070
xS)				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	95	(50 - 200)
13C4 PFOS	63	(50 - 200)
13C4 PFBA	82	(50 - 200)
13C2 PFHxA	90	(50 - 200)
18O2 PFHxS	80	(50 - 200)
13C5 PFNA	79	(50 - 200)
13C2 PFDA	59	(50 - 200)
13C2 PFUnA	56	(50 - 200)
13C2 PFDoA	53	(50 - 200)

Dalton Utilities

Client Sample ID: DUP #2

HPLC

Lot-Sample #....: D9I180169-017
Date Sampled....: 09/17/09
Prep Date.....: 09/21/09
Prep Batch #....: 9264543
Dilution Factor: 1

Work Order #....: LK3DL1AC
Date Received...: 09/18/09
Analysis Date...: 09/25/09
Analysis Time...: 02:26

Matrix.....: WATER

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOA	65	(50 - 200)

Dalton Utilities

Client Sample ID: DUP #3

HPLC

Lot-Sample #....: D9I180169-018 Work Order #....: LK3DQ1AA Matrix.....: WATER
 Date Sampled....: 09/17/09 Date Received...: 09/18/09
 Prep Date.....: 09/20/09 Analysis Date...: 09/24/09
 Prep Batch #....: 9263042 Analysis Time...: 09:16
 Dilution Factor: 1 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	0.089	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.062	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	0.017 J	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	0.039	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.065	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	0.047	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
S)				
Perfluorobutane sulfonate (PFBS)	0.038	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	0.068	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	90	(50 - 200)
13C4 PFOS	56	(50 - 200)
13C4 PFBA	80	(50 - 200)
13C2 PFHxA	83	(50 - 200)
18O2 PFHxS	77	(50 - 200)
13C5 PFNA	68	(50 - 200)
13C2 PFDA	54	(50 - 200)
13C2 PFUnA	52	(50 - 200)
13C2 PFDoA	48 *	(50 - 200)

NOTE(S):

- * Surrogate recovery is outside stated control limits.
- J Estimated result. Result is less than RL.

Dalton Utilities

Client Sample ID: DUP #3

HPLC

Lot-Sample #....: D9I180169-018
Date Sampled....: 09/17/09
Prep Date.....: 09/21/09
Prep Batch #....: 9264543
Dilution Factor: 1

Work Order #....: LK3DQ1AC
Date Received...: 09/18/09
Analysis Date...: 09/25/09
Analysis Time...: 02:34

Matrix.....: WATER

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	LIMIT 0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	64	(50 - 200)

Dalton Utilities

Client Sample ID: DUP #3

HPLC

Lot-Sample #....: D9I180169-018	Work Order #....: LK3DQ2AA	Matrix.....: WATER
Date Sampled....: 09/17/09	Date Received...: 09/18/09	
Prep Date.....: 09/24/09	Analysis Date...: 09/28/09	
Prep Batch #....: 9267578	Analysis Time...: 04:34	
Dilution Factor: 1		

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	0.072	0.020	ug/L	0.0098
Perfluorooctanesulfonate	0.057	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	0.021	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	0.039	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	0.061 B	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	0.050	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	0.043	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	0.070	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	116	(50 - 200)
13C4 PFOS	71	(50 - 200)
13C4 PFBA	77	(50 - 200)
13C2 PFHxA	107	(50 - 200)
18O2 PFHxS	85	(50 - 200)
13C5 PFNA	86	(50 - 200)
13C2 PFDA	73	(50 - 200)
13C2 PFUnA	60	(50 - 200)
13C2 PFDoA	65	(50 - 200)

NOTE(S):

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Dalton Utilities

Client Sample ID: DUP #4

HPLC

Lot-Sample #....: D9I180169-019
Date Sampled....: 09/17/09
Prep Date.....: 09/20/09
Prep Batch #....: 9263042
Dilution Factor: 1

Work Order #....: LK3DR1AA
Date Received...: 09/18/09
Analysis Date...: 09/24/09
Analysis Time...: 09:32

Matrix.....: WATER

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
)				
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
)				
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
)				
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	94	(50 - 200)
13C4 PFOS	63	(50 - 200)
13C4 PFBA	81	(50 - 200)
13C2 PFHxA	86	(50 - 200)
18O2 PFHxS	79	(50 - 200)
13C5 PFNA	79	(50 - 200)
13C2 PFDA	61	(50 - 200)
13C2 PFUnA	54	(50 - 200)
13C2 PFDoA	52	(50 - 200)

Dalton Utilities

Client Sample ID: DUP #4

HPLC

Lot-Sample #....: D9I180169-019 Work Order #....: LK3DR1AC Matrix.....: WATER
 Date Sampled....: 09/17/09 Date Received...: 09/18/09
 Prep Date.....: 09/21/09 Analysis Date...: 09/25/09
 Prep Batch #....: 9264543 Analysis Time...: 02:41
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	29 *	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.



November 24, 2009

Ms. Gail Mitchell, Deputy Director
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Private Drinking Water Well Survey Results

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting the final analytical results received for the Private Drinking Water Well Survey. The results are contained in Attachment A which is provided herein as bound reports titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Lot # D9J030133 which contains 555 pages. This is the last analytical report to be submitted for the Private Drinking Water Well Survey.

If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false

Ms. Gail Mitchell
November 24, 2009
Page 2 of 2

information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,



Don Cope
President & CEO

Attachment

- c: Mr. Allen Barnes, Georgia Environmental Protection Division (cover letter only)
 - Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural Resources (cover letter only)
 - Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
 - Lee A. DeHihns, Esq.
-



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Perfluorocarbon (PFC) Analysis

Lot #: D9J030133

Dena Haverland

Dalton Utilities
1200 V.D. Parrot Jr. Parkway
Dalton, GA 30721



Michelle A. Johnston
Project Manager

November 17, 2009

Case Narrative

D9J030133

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

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Sample Arrival and Receipt

The following report contains the analytical results for four water samples received at TestAmerica Denver on October 3, 2009, according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 3.1°C. No anomalies were encountered during sample receipt.

Standards

Analytical standards were prepared using commercially available certified solutions containing all compounds of interest.

The mass labeled compounds 13C4 PFBA, 13C2 PFHxA, 18O2 PFHxS, 13C4 PFOA, 13C4 PFOS, 13C5 PFNA, 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, and D3 MeFOSA were introduced at the extraction step and were used for internal standards for the quantitation of the target compounds.

Sample Extraction and Analysis

The samples presented in this report were extracted for the target analytes by TestAmerica Denver's Standard Operating Procedure (SOP) DV-OP-0019 and analyzed for the target analytes by TestAmerica Denver's SOP DV-LC-0012.

Method QC Samples

The Method Blank is processed reagent water spiked with internal standard and prepared with each batch of 20 samples of the same matrix. The method blanks were non-detect at the reporting limits for the target analytes.

Each batch is prepared with low and mid level Laboratory Control Samples (LCS). The LCS recoveries for both levels were within established control limits, with the exception of the items noted in section Analytical Comments.

Analytical Comments

The Standard Operating Procedure (SOP) was altered slightly in the sample preparation for FOSA. Sodium hydroxide was added to all nineteen samples to obtain a pH of 14 instead of the SOP required <2. Also, a Strata-XL 100u Polymeric Reversed Phase cartridge was used for the extraction. The basic pH and Strata-XL cartridge are generating better internal standard recoveries for MeFOSA.

Due to low internal standard recoveries in the samples and in the QC associated with PFC batch 9278425, samples #113 210 Mansfield Rd, #114 1257 Sane Rd, and DUP #6 were re-extracted out of the laboratory prescribed hold time and reanalyzed in PFC QC batch 9295582. Both batches are included in this report. Please note the sample results should be considered estimated.

Due to low internal standard recoveries in the samples and/or in the QC associated with FOSA batch 9297461, samples #113 210 Mansfield Rd, #114 1257 Sane Rd, DUP #5, and DUP #6 were re-extracted out of the laboratory prescribed hold time and reanalyzed in PFC QC batch 9295579. Both batches are included in this report. Please note the sample results should be considered estimated.

The internal standard recoveries for 13C2 PFUnA and 13C2 PFDoA associated with PFC QC batch 9278425 were recovered below 50% in sample #113 210 Mansfield Rd. The internal standard recovery for 13C2 PFUnA associated with PFC QC batch 9278425 was recovered below 50% in sample DUP #6. Upon re-extraction and reanalysis in QC batch 9295582, the internal standard recoveries were 100% in control. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time.

The internal standard recovery for 13C2 PFUnA associated with PFC QC batch 9278425 was recovered below 50% in sample #114 1257 Sane Rd. Upon re-extraction and reanalysis in PFC QC batch 9295582, an internal standard outlier was still present, demonstrating this anomaly is most likely due to matrix interference. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time.

The internal standard recoveries for MeFOSA associated with PFC QC batch 9279461 recovered below 50% in samples #114 1257 Sane Rd, DUP #5, and DUP #6. Upon re-extraction and reanalysis in QC batch 9295579, the internal standard recoveries were 100% in control. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time.

The PFC Method Blank, low-level LCS, and mid-level LCS/LCSD analyses associated with QC batch 9278425 exhibited internal standard recoveries outside the QC control limits for 13C2 PFUnA and/or 13C2 PFDoA. Upon re-extraction and reanalysis in QC batch 9295582, the internal standard recoveries were 100% in control. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time.

The PFC low-level LCS analysis associated with QC batch 9278425 exhibited a percent recovery outside the control limits for Perfluorodecane sulfonate (PFDS). Upon re-extraction and reanalysis in QC batch 9295582, the PFDS recovery was 100% in control. However, Perfluorooctanesulfonate (PFOS) was recovered outside the control limits. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time. Please note PFDS is not a target compound for this project.

Due to a limitation in the LIMS system, the PFC low-level LCS associated with QC batch 9278425 reported the percent recovery for Perfluorotridecanoic Acid (PFTriA) as 0.0%. PFTriA was recovered within the control limits (50-150%) at 60%. As the compound was detected

Lot #: D9J030133

below the Method Detection Limit (MDL) of 0.020 ug/L, the system reports the percent recoveries as 0.0%.

The FOSA low-level LCS analysis associated with QC batch 9279461 exhibited internal standard recoveries outside the QC control limits for MeFOSA. Upon re-extraction and reanalysis in QC batch 9295579, the internal standard recoveries were 100% in control. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time.

The method required MS/MSD could not be performed for QC batches 9278425, 9295582, 9279461, and 9295579, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable low-level LCS and mid-level LCS/LCSD analyses data.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D9J030133

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
NO DETECTABLE PARAMETERS				

METHODS SUMMARY

D9J030133

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
LC/MS/MS PFCs	DEN -LC-0012	SW846 FOSA spec

References:

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

METHOD / ANALYST SUMMARY

D9J030133

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
DEN -LC-0012	Jacqueline Bonnett	003601

References:

DEN Severn Trent Laboratores, Denver, Facility Standard
Operating Procedure.

SAMPLE SUMMARY

D9J030133

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LL0DP	001	#113 210 MANSFIELD RD	09/29/09	09:45
LL0DR	002	#114 1257 SANE RD	09/29/09	10:42
LL0D1	003	DUP #5	09/29/09	
LL0D3	004	DUP #6	09/29/09	

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Dalton Utilities

Client Sample ID: #113 210 MANSFIELD RD

HPLC

Lot-Sample #....: D9J030133-001 **Work Order #....:** LL0DP1AA **Matrix.....:** WATER
Date Sampled....: 09/29/09 09:45 **Date Received...:** 10/03/09
Prep Date.....: 10/05/09 **Analysis Date...:** 10/17/09
Prep Batch #....: 9278425 **Analysis Time...:** 04:05
Dilution Factor: 1
Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	129	(50 - 200)
13C4 PFOS	78	(50 - 200)
13C4 PFBA	106	(50 - 200)
13C2 PFHxA	105	(50 - 200)
18O2 PFHxS	126	(50 - 200)
13C5 PFNA	93	(50 - 200)
13C2 PFDA	60	(50 - 200)
13C2 PFUnA	48 *	(50 - 200)
13C2 PFDoA	47 *	(50 - 200)

NOTE(S) :

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: #113 210 MANSFIELD RD

HPLC

Lot-Sample #....: D9J030133-001 Work Order #....: LL0DP1AC Matrix.....: WATER
Date Sampled....: 09/29/09 09:45 Date Received...: 10/03/09
Prep Date.....: 10/06/09 Analysis Date...: 10/17/09
Prep Batch #....: 9279461 Analysis Time...: 17:46
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	67	(50 - 200)

Dalton Utilities

Client Sample ID: #113 210 MANSFIELD RD

HPLC

Lot-Sample #....: D9J030133-001 Work Order #....: LL0DP2AA Matrix.....: WATER
 Date Sampled....: 09/29/09 09:45 Date Received...: 10/03/09
 Prep Date.....: 10/22/09 Analysis Date...: 11/05/09
 Prep Batch #....: 9295582 Analysis Time...: 13:34
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTEA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	162	(50 - 200)
13C4 PFOS	68	(50 - 200)
13C4 PFBA	98	(50 - 200)
13C2 PFHxA	129	(50 - 200)
18O2 PFHxS	78	(50 - 200)
13C5 PFNA	81	(50 - 200)
13C2 PFDA	69	(50 - 200)
13C2 PFUnA	68	(50 - 200)
13C2 PFDoA	58	(50 - 200)

Dalton Utilities

Client Sample ID: #113 210 MANSFIELD RD

HPLC

Lot-Sample #....: D9J030133-001 Work Order #....: LL0DP2AC Matrix.....: WATER
Date Sampled....: 09/29/09 09:45 Date Received...: 10/03/09
Prep Date.....: 10/22/09 Analysis Date...: 11/01/09
Prep Batch #....: 9295579 Analysis Time...: 07:26
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	78	(50 - 200)

Dalton Utilities

Client Sample ID: #114 1257 SANE RD

HPLC

Lot-Sample #....: D9J030133-002 Work Order #....: LL0DR1AA Matrix.....: WATER
 Date Sampled....: 09/29/09 10:42 Date Received...: 10/03/09
 Prep Date.....: 10/05/09 Analysis Date...: 10/17/09
 Prep Batch #....: 9278425 Analysis Time...: 04:21
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
riA)				
Perfluorotetradecanoic acid (PFTEA)	ND	0.020	ug/L	0.015
FTEA)				
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
S)				
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070
xS)				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	113	(50 - 200)
13C4 PFOS	68	(50 - 200)
13C4 PFBA	97	(50 - 200)
13C2 PFHxA	102	(50 - 200)
18O2 PFHxS	111	(50 - 200)
13C5 PFNA	92	(50 - 200)
13C2 PFDA	58	(50 - 200)
13C2 PFUnA	45 *	(50 - 200)
13C2 PFDoA	51	(50 - 200)

NOTE(S) :

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: #114 1257 SANE RD

HPLC

Lot-Sample #....: D9J030133-002 Work Order #....: LL0DRLAC Matrix.....: WATER
Date Sampled....: 09/29/09 10:42 Date Received...: 10/03/09
Prep Date.....: 10/06/09 Analysis Date...: 10/17/09
Prep Batch #....: 9279461 Analysis Time...: 17:53
Dilution Factor: 1

Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	49 *	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: #114 1257 SANE RD

HPLC

Lot-Sample #....: D9J030133-002 Work Order #....: LL0DR2AA Matrix.....: WATER
 Date Sampled....: 09/29/09 10:42 Date Received...: 10/03/09
 Prep Date.....: 10/22/09 Analysis Date...: 11/05/09
 Prep Batch #....: 9295582 Analysis Time...: 13:45
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
riA)				
Perfluorotetradecanoic acid (PFTEA)	ND	0.020	ug/L	0.015
FTEA)				
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
S)				
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070
xS)				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	152	(50 - 200)
13C4 PFOS	59	(50 - 200)
13C4 PFBA	99	(50 - 200)
13C2 PFHxA	127	(50 - 200)
18O2 PFHxS	79	(50 - 200)
13C5 PFNA	76	(50 - 200)
13C2 PFDA	62	(50 - 200)
13C2 PFUnA	57	(50 - 200)
13C2 PFDoA	49 *	(50 - 200)

NOTE(S) :

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: #114 1257 SANE RD

HPLC

Lot-Sample #....: D9J030133-002 Work Order #....: LL0DR2AC Matrix.....: WATER
Date Sampled...: 09/29/09 10:42 Date Received...: 10/03/09
Prep Date.....: 10/22/09 Analysis Date...: 11/01/09
Prep Batch #....: 9295579 Analysis Time...: 07:31
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	53	(50 - 200)

Dalton Utilities

Client Sample ID: DUP #5

HPLC

Lot-Sample #....: D9J030133-003 Work Order #....: LL0D11AA Matrix.....: WATER
 Date Sampled....: 09/29/09 Date Received...: 10/03/09
 Prep Date.....: 10/05/09 Analysis Date...: 10/17/09
 Prep Batch #....: 9278425 Analysis Time...: 04:37
 Dilution Factor: 1 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	112	(50 - 200)
13C4 PFOS	72	(50 - 200)
13C4 PFBA	89	(50 - 200)
13C2 PFHxA	99	(50 - 200)
18O2 PFHxS	105	(50 - 200)
13C5 PFNA	96	(50 - 200)
13C2 PFDA	69	(50 - 200)
13C2 PFUnA	58	(50 - 200)
13C2 PFDoA	63	(50 - 200)

Dalton Utilities

Client Sample ID: DUP #5

HPLC

Lot-Sample #....: D9J030133-003 Work Order #....: LLOD11AC Matrix.....: WATER
Date Sampled....: 09/29/09 Date Received...: 10/03/09
Prep Date.....: 10/06/09 Analysis Date...: 10/17/09
Prep Batch #....: 9279461 Analysis Time...: 18:00
Dilution Factor: 1
Method.....: DEN -LC-0012

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>MDL</u>
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

<u>SURROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
MeFOSA	57	(50 - 200)

Dalton Utilities

Client Sample ID: DUP #5

HPLC

Lot-Sample #....: D9J030133-003 Work Order #....: LL0D12AC Matrix.....: WATER
 Date Sampled....: 09/29/09 Date Received...: 10/03/09
 Prep Date.....: 10/22/09 Analysis Date...: 11/01/09
 Prep Batch #....: 9295579 Analysis Time...: 07:37
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	56	(50 - 200)

Dalton Utilities

Client Sample ID: DUP #6

HPLC

Lot-Sample #....: D9J030133-004 Work Order #....: LL0D31AA Matrix.....: WATER
 Date Sampled....: 09/29/09 Date Received...: 10/03/09
 Prep Date.....: 10/05/09 Analysis Date...: 10/17/09
 Prep Batch #....: 9278425 Analysis Time...: 04:53
 Dilution Factor: 1

Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTria)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	106	(50 - 200)
13C4 PFOS	64	(50 - 200)
13C4 PFBA	92	(50 - 200)
13C2 PFHxA	99	(50 - 200)
18O2 PFHxS	107	(50 - 200)
13C5 PFNA	93	(50 - 200)
13C2 PFDA	58	(50 - 200)
13C2 PFUnA	47 *	(50 - 200)
13C2 PFDoA	53	(50 - 200)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: DUP #6

HPLC

Lot-Sample #....: D9J030133-004 Work Order #....: LL0D31AC Matrix.....: WATER
 Date Sampled....: 09/29/09 Date Received...: 10/03/09
 Prep Date.....: 10/06/09 Analysis Date...: 10/17/09
 Prep Batch #....: 9279461 Analysis Time...: 18:07
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	37 *	(50 - 200)

NOTE (S) :

* Surrogate recovery is outside stated control limits.

Dalton Utilities

Client Sample ID: DUP #6

HPLC

Lot-Sample #....: D9J030133-004	Work Order #....: LL0D32AA	Matrix.....: WATER
Date Sampled....: 09/29/09	Date Received...: 10/03/09	
Prep Date.....: 10/22/09	Analysis Date...: 11/05/09	
Prep Batch #....: 9295582	Analysis Time...: 13:56	
Dilution Factor: 1		
	Method.....: DEN -LC-0012	

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctanoic Acid	ND	0.020	ug/L	0.0098
Perfluorooctanesulfonate	ND	0.020	ug/L	0.013
Perfluorobutanoic acid (PFBA)	ND	0.020	ug/L	0.0098
Perfluoropentanoic acid (PFPA)	ND	0.030	ug/L	0.011
Perfluorohexanoic acid (PFHxA)	ND	0.020	ug/L	0.0029
Perfluoroheptanoic acid (PFHpA)	ND	0.020	ug/L	0.013
)				
Perfluorononanoic acid (PFNA)	ND	0.020	ug/L	0.017
Perfluorodecanoic acid (PFDA)	ND	0.020	ug/L	0.0078
Perfluoroundecanoic acid (PFUnA)	ND	0.020	ug/L	0.0069
A)				
Perfluorododecanoic acid (PFDoA)	ND	0.020	ug/L	0.015
A)				
Perfluorotridecanoic acid (PFTriA)	ND	0.020	ug/L	0.018
Perfluorotetradecanoic acid (PFTeA)	ND	0.020	ug/L	0.015
Perfluorobutane sulfonate (PFBS)	ND	0.020	ug/L	0.0082
Perfluorohexane sulfonate (PFHxS)	ND	0.030	ug/L	0.0070

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	148	(50 - 200)
13C4 PFOS	58	(50 - 200)
13C4 PFBA	95	(50 - 200)
13C2 PFHxA	124	(50 - 200)
18O2 PFHxS	77	(50 - 200)
13C5 PFNA	79	(50 - 200)
13C2 PFDA	64	(50 - 200)
13C2 PFUnA	59	(50 - 200)
13C2 PFDoA	55	(50 - 200)

Dalton Utilities

Client Sample ID: DUP #6

HPLC

Lot-Sample #....: D9J030133-004 Work Order #....: LL0D32AC Matrix.....: WATER
 Date Sampled....: 09/29/09 Date Received...: 10/03/09
 Prep Date.....: 10/22/09 Analysis Date...: 11/01/09
 Prep Batch #....: 9295579 Analysis Time...: 07:42
 Dilution Factor: 1
 Method.....: DEN -LC-0012

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Perfluorooctane sulfonamide (F OSA)	ND	0.050	ug/L	0.0057

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
MeFOSA	50	(50 - 200)

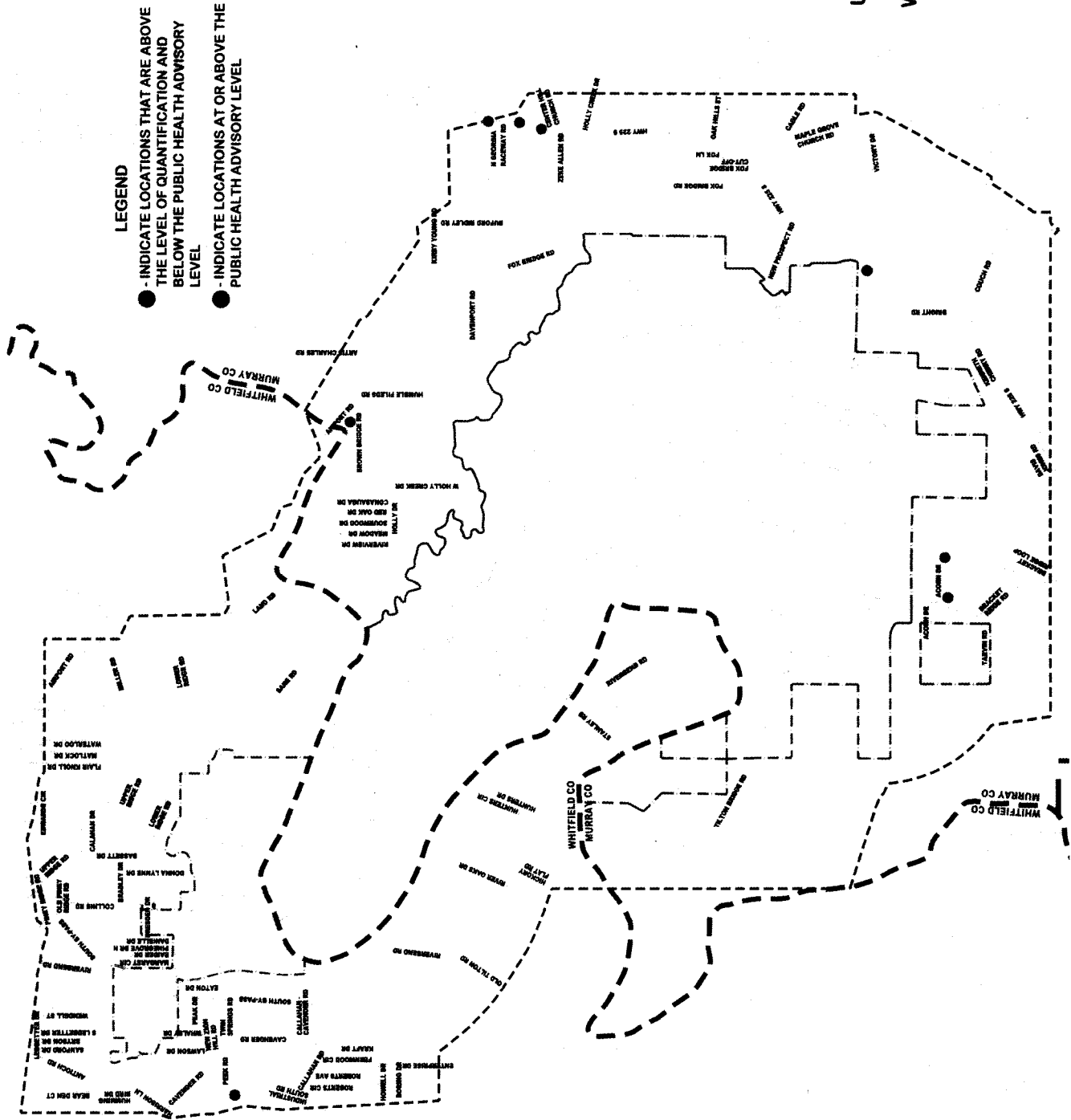
The map displays the following details:

- Road Network:** Major roads like Highway 101 (running north-south) and Highway 97 (running east-west) are clearly marked. A dense network of secondary roads and trails crisscrosses the landscape.
- Geographical Features:** The map shows several bodies of water, including Lake Shasta and various reservoirs. Topographical contours indicate elevation changes across the terrain.
- Settlements and Landmarks:** Towns such as Eureka, Ukiah, and Red Bluff are labeled. Specific landmarks, including schools, churches, and government buildings, are also identified.
- Administrative Boundaries:** The boundaries between different counties or jurisdictions are delineated by dashed lines.

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ATTACHMENT R TO DALTON UTILITIES PRIVATE DRINKING WATER WELL MONITORING REPORT

PAGE: 1 OF 1



ALSTON & BIRD LLP

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1201 West Peachtree Street
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April 28, 2010

VIA UPS OVERNIGHT DELIVERY

Gail Mitchell, Deputy Director
Water Protection Division
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

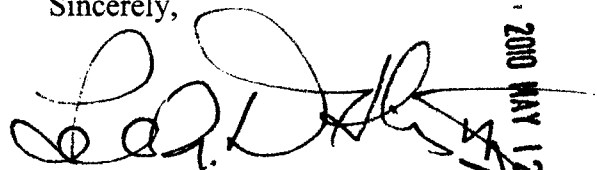
**Re: October 6, 2009, Information Request – Section 308 of the Clean
Water Act - Dalton Utilities Land Application System**

Dear Ms. Mitchell:

This letter provides information from Dalton Utilities in connection with its ongoing responses to EPA's October 6, 2009, Section 308 of the Clean Water Act request (the "Request") addressed to Mr. Don Cope, President and CEO of Dalton Utilities. The enclosures are a letter dated April 28, 2010, with a certification signed pursuant to the Request and responses to various Paragraphs of Enclosure A of the Request, **Monthly Progress Report**.

Please contact me if have any questions regarding the information supplied pursuant to the Request.

Sincerely,



Lee A. DeHihns, III

LAD:gba
Enclosures

LEGAL02/31578197v16

2010 MAY 12 A 11:15



April 28, 2010

Ms. Gail Mitchell, Deputy Director
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Information Request Pursuant to Section 308 of the Clean Water Act
Monthly Progress Report

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting this Monthly Progress Report to you.

Dalton Utilities submitted the Drinking Water Well Survey (Drinking Water Report), Drinking Water Well Monitoring Report, Composted Biosolids Monitoring Plan, Compost Use Review Report, and Well Construction Records on November 4, November 5, November 2, November 2, and October 23, 2009, respectively, in response to the aforementioned Information Request. Additionally, Dalton Utilities submitted revised versions of these documents on January 13, 2010, in accordance with comments from the United States Environmental Protection Agency (EPA) dated December 22, 2009.

With respect to the Drinking Water Well Survey, Dalton Utilities has instituted the quarterly sampling of the seven private drinking water wells shown to have levels of Perfluorooctanoic Acid (PFOA) or Perfluorooctane Sulfonate (PFOS) above the contract laboratory's reporting limit or level of quantification and below the published public health advisory level as well as the two additional wells found to have levels of Perfluorinated Chemicals (PFC) other than PFOA or PFOS above the contract laboratory's reporting limit or level of quantification. All analytical results of these sampling events received to date have been submitted to you. These locations are scheduled to be sampled again in May 2010.

To ensure no additional locations exist in the survey radius, Dalton Utilities requested all available information from the Georgia Environmental Protection Division as they are the governing agency for well drillers in the State of Georgia per the North Georgia Health

District's correspondence (see Attachment A). Per the response from the Georgia EPD, no Intent to Drill forms or additional locations were compiled from this inquiry (see Attachment B).

Additionally, the locations where there were no signs of occupancy during the initial survey, such as foreclosed or abandoned properties, were investigated further in an attempt to contact the property owner and determine if a private well is present at the location. Certified letters were sent to the last known owner or resident. Attachment C is an example of this correspondence. To date, no responses from these locations have been received by Dalton Utilities.

In accordance with the Composted Biosolids Monitoring Plan, Dalton Utilities has sampled the on-site inventory of finished compost twice and submitted all analytical results received to date to you. This sampling is scheduled to be repeated in June and October 2010.

In accordance with the Compost Use Review Report, Dalton Utilities has submitted to EPA all the final analytical reports for this project. The field sketches corresponding to these sampling events are provided herein as Attachment D and include all the available information relative to the sample collections.

Additionally, samples of the locations stipulated in the aforementioned Information Request's Enclosure A, Paragraph 5 were collected as required for the first two quarters and the analytical sample results for these sampling events submitted to EPA. The final quarterly sampling of these locations occurred in April 2010. The final analytical results from this sampling event will be submitted to EPA after receipt.

As always, Dalton Utilities will update you as the projects discussed with you proceed. If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false

Ms. Gail Mitchell
April 28, 2010
Page 3 of 3

information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Cope", written over the printed name.

Don Cope
President & CEO

Attachments (4)

- c: Mr. Allen Barnes, Georgia Environmental Protection Division (cover letter only)
- Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural Resources (cover letter only)
- Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
- Lee A. DeHihns, Esq.



DHR

Georgia Department of Human Resources

North Georgia Health District
District 1, Unit 2

100 West Walnut Ave., Suite 92
Dalton, Georgia 30720

Harold W. Pitts, M.D., J.D.

District Health Director

(706) 272-2342

FAX (706) 272-2221

October 20, 2009

Dena Haverland
Regulatory Compliance Manager
Dalton Utilities
1200 Parrott, Jr. Parkway
P.O. Box 869
Dalton, GA 30722

RE: Request for Intent to Drill Forms

Dear Dena,

I checked with our environmental health offices in Whitfield and Murray Counties. Murray had a few old forms but none for wells within a one-mile radius of the subject property. Whitfield reported having no intent-to-drill forms.

I was working in public health in 1985 when the Georgia Well Water Standards Act was passed. At first we received great numbers of intent-to-drill forms but over the years compliance declined so that now we receive almost none from well drillers. This seems to be the typical condition throughout Georgia unless a county board of health passes a well location ordinance. Georgia EPD is the governing agency for well drillers and intent-to-drill forms.

I'm sorry we could not be of more help. Please call me if you have any questions or if I may otherwise be of assistance.

Sincerely,

Raymond R. King
District Director of Environmental Health

Georgia Department of Natural Resources

2 MLK, Jr. Dr, S.E., Suite 1058 East Tower, Atlanta, Georgia 30334-9000

Environmental Protection Division

Water Resources Branch

Linda MacGregor, P. E., Branch Chief

404/675-6232

FAX: 404/675-6247

Reply To:
Regulatory Support Program
Suite 400
19 Martin Luther King, Jr. Dr. S.W.
Atlanta, Georgia 30334-9004
(404) 656-3214

December 17, 2009

Dalton Utilities
Ms. Dena Haverland
P.O. Box 869
Dalton, Georgia 30722

The following is in response to your request for all municipal drinking water wells permitted and Intent to Drill applications received by the Georgia Department of Natural Resources, Environmental Protection Division.

There are no permitted municipal drinking water wells nor applications for Intent to Drill located within the area delineated on the plot map provided. If there are any questions concerning this well survey, please call 404-65-6140.

Sincerely,



Sandra Jo Robertson, P.G.
Geologist III
Wellhead Protection Program



February 26, 2010

[NAME]
[ADDRESS]
[ADDRESS]

Re: Private Drinking Water Well Survey

Dear [NAME]:

Dalton Utilities has identified two chemicals, Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS), in groundwater at our land application site for which the United States Environmental Protection Agency (USEPA) recently issued Health Advisories. USEPA studies of exposure to these chemicals have not shown any adverse health outcomes in humans.

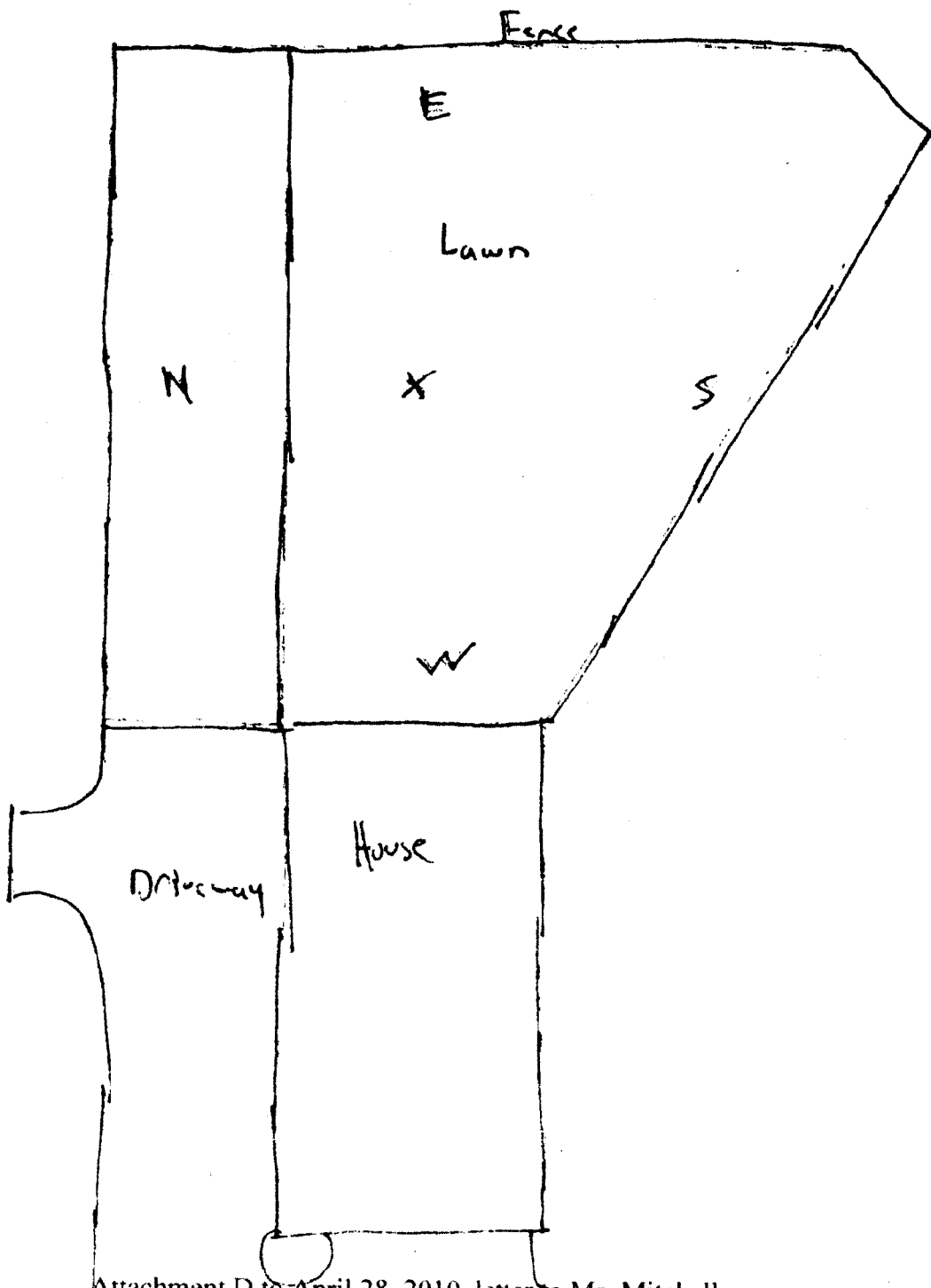
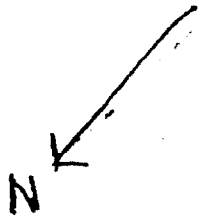
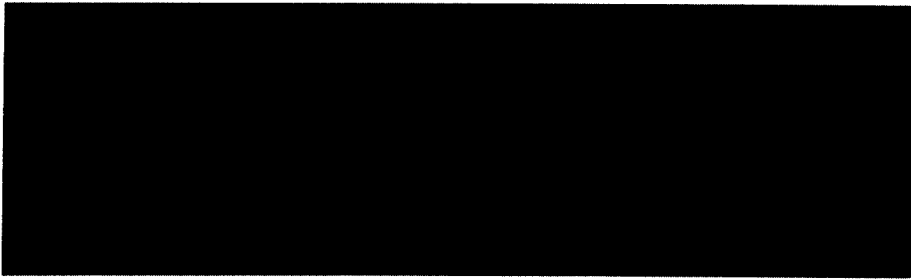
As a precaution after the publication of the health advisory, Dalton Utilities conducted a private drinking water well survey in which the location noted above was identified as possibly having a private drinking water well.

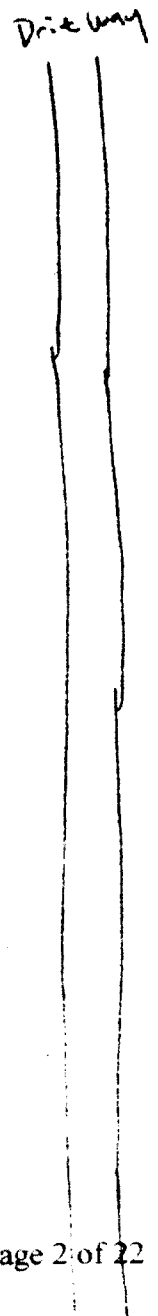
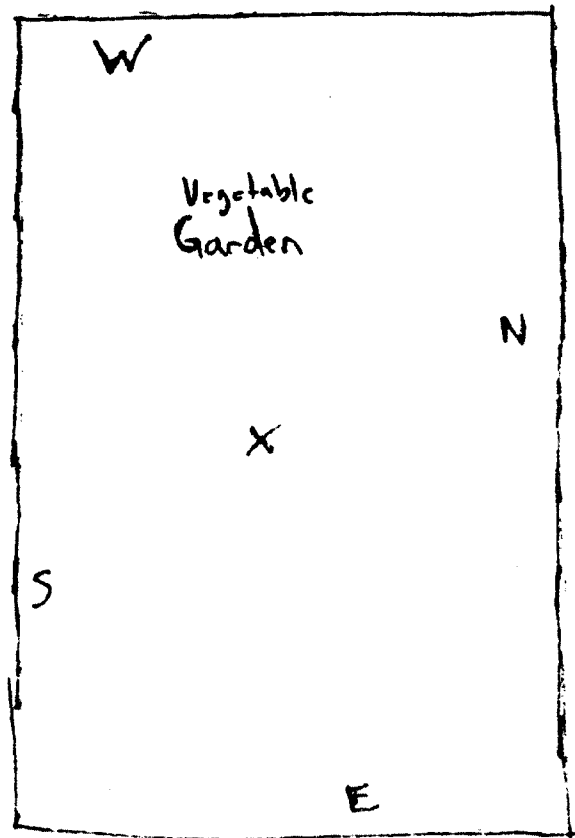
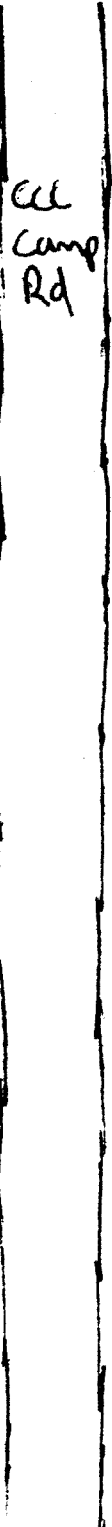
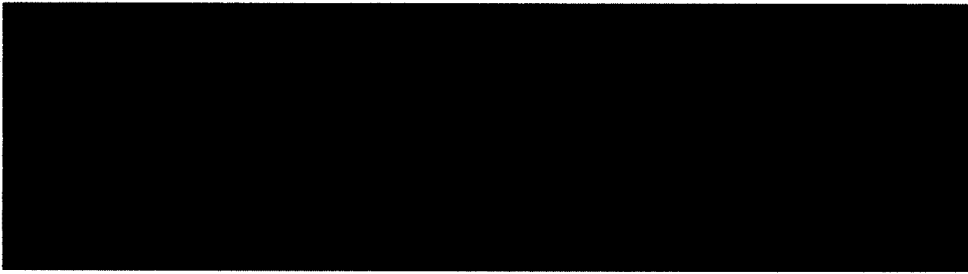
If a private well is used as the primary source of drinking water at the location listed above, please contact Dalton Utilities to schedule a convenient time for us to sample the private well to determine if it has potentially been impacted by these two chemicals.

If you have any questions or to schedule the sampling event, please contact me at 706-529-1010 or dhaverland@dutil.com.

Sincerely,

Dena Haverland
Regulatory Compliance Manager





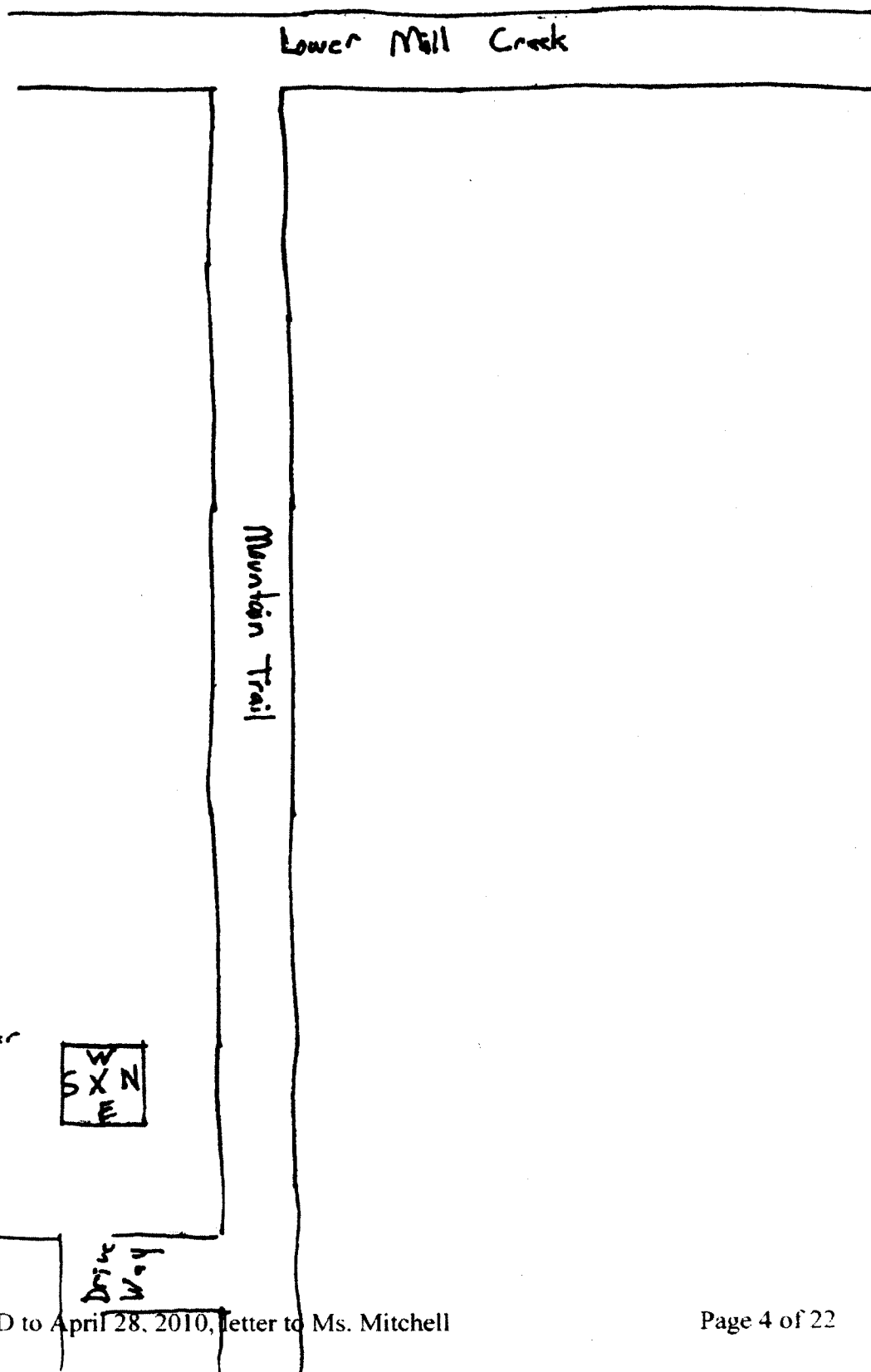
* Private Well located on property. Not shown on diagram.
Well is approximately 200 yds North of garden.

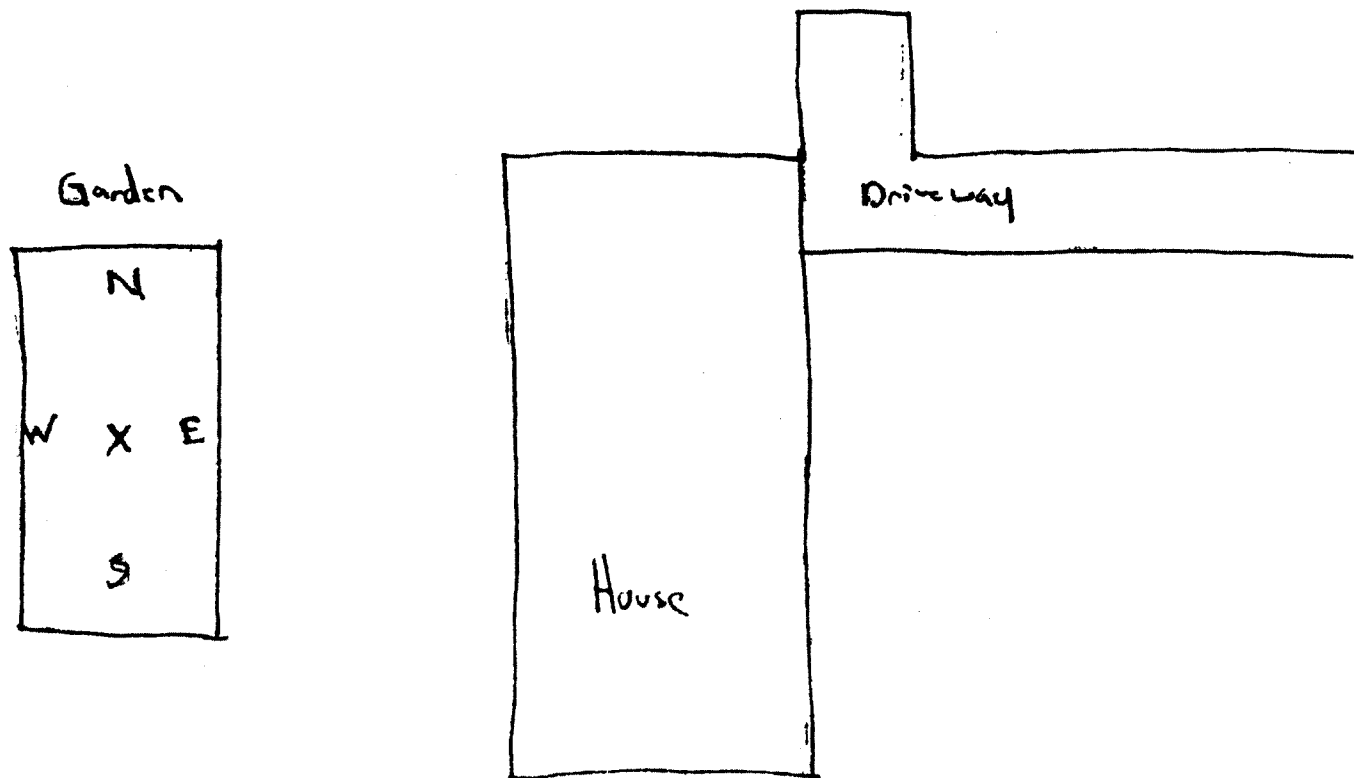
Vegetable
Garden



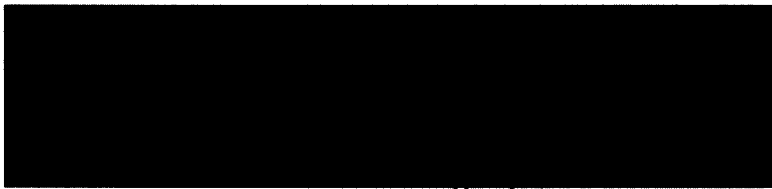


Soil Type: Unavailable





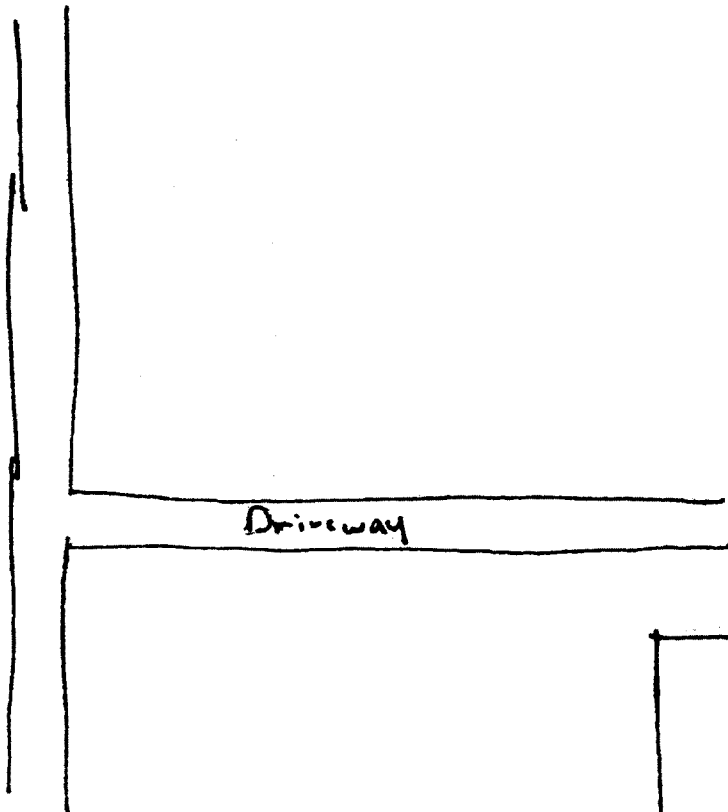
Soil Type: Arkabutla silt loam, occasionally flooded 0-2%



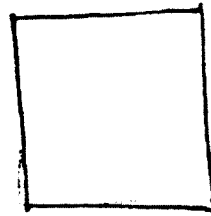
Soil Type: Unavailable



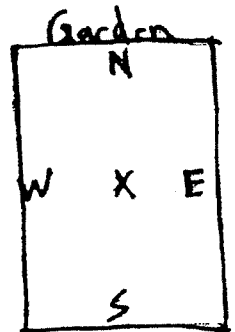
5 in Petty Rd.



House



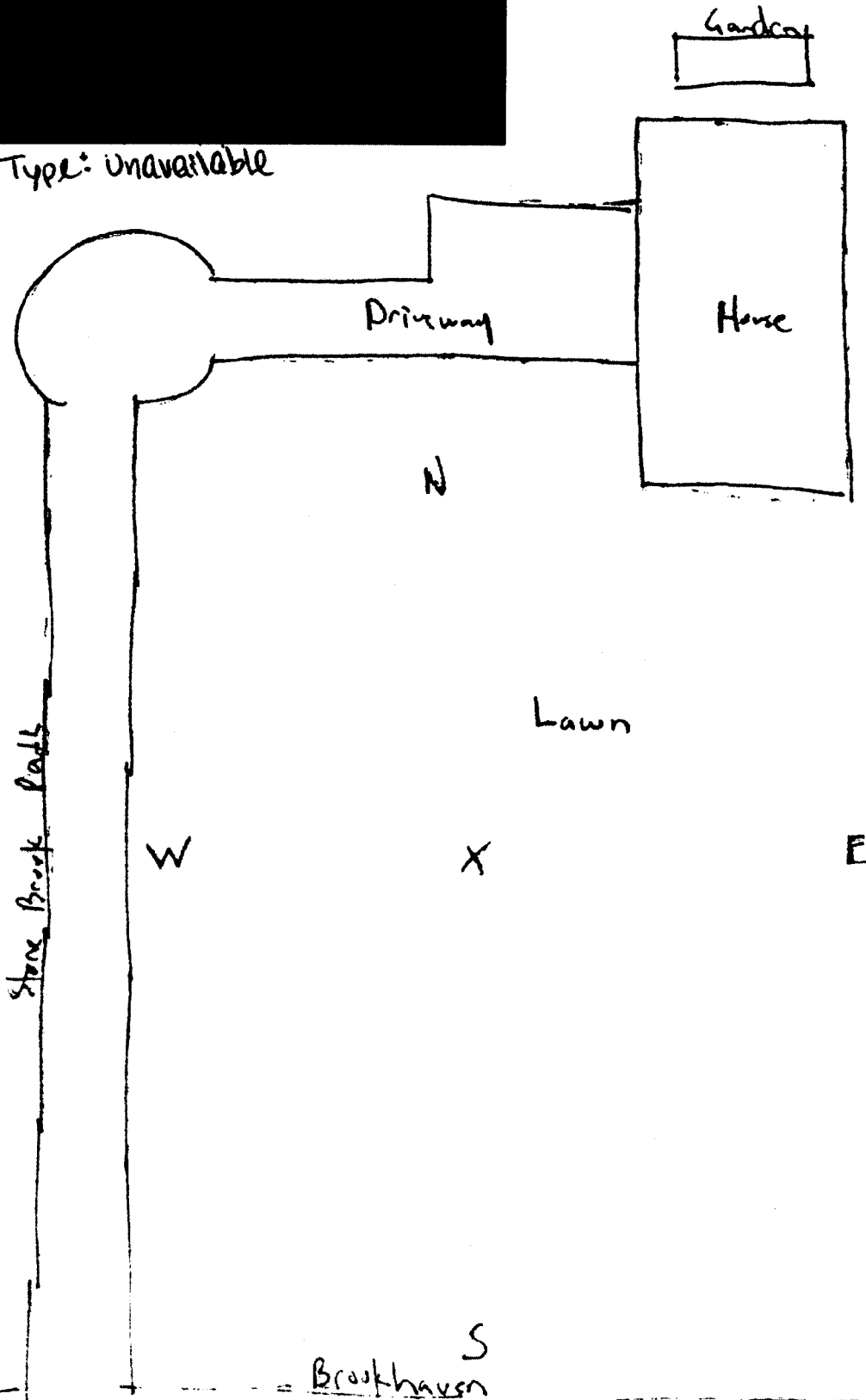
Workshop

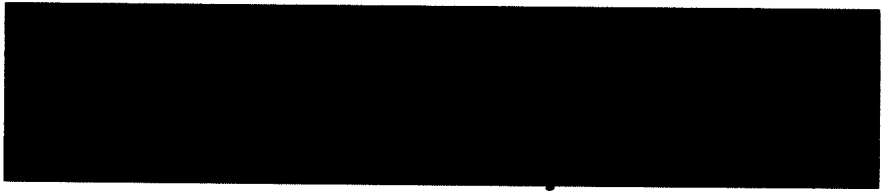


Private Well
○

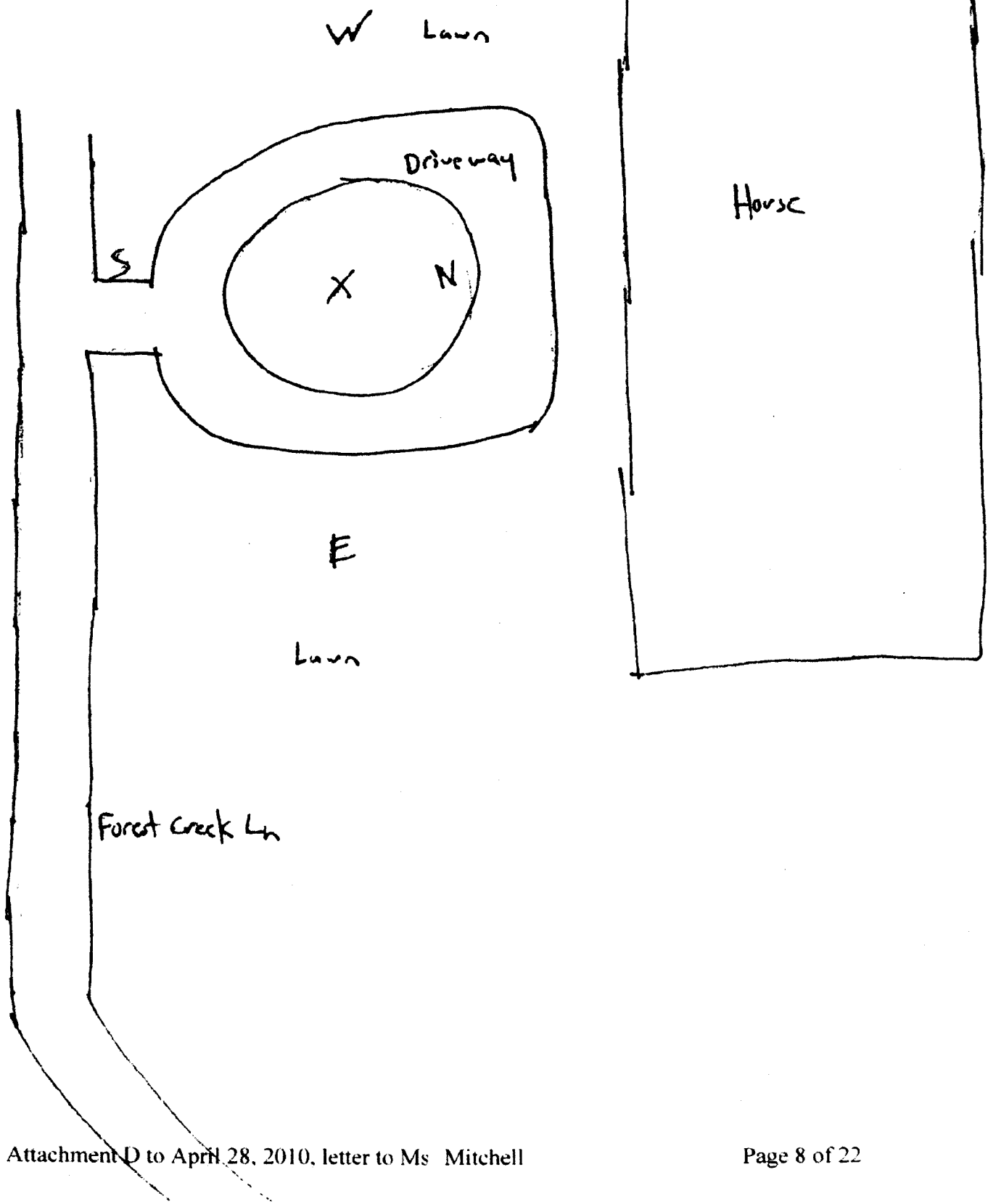


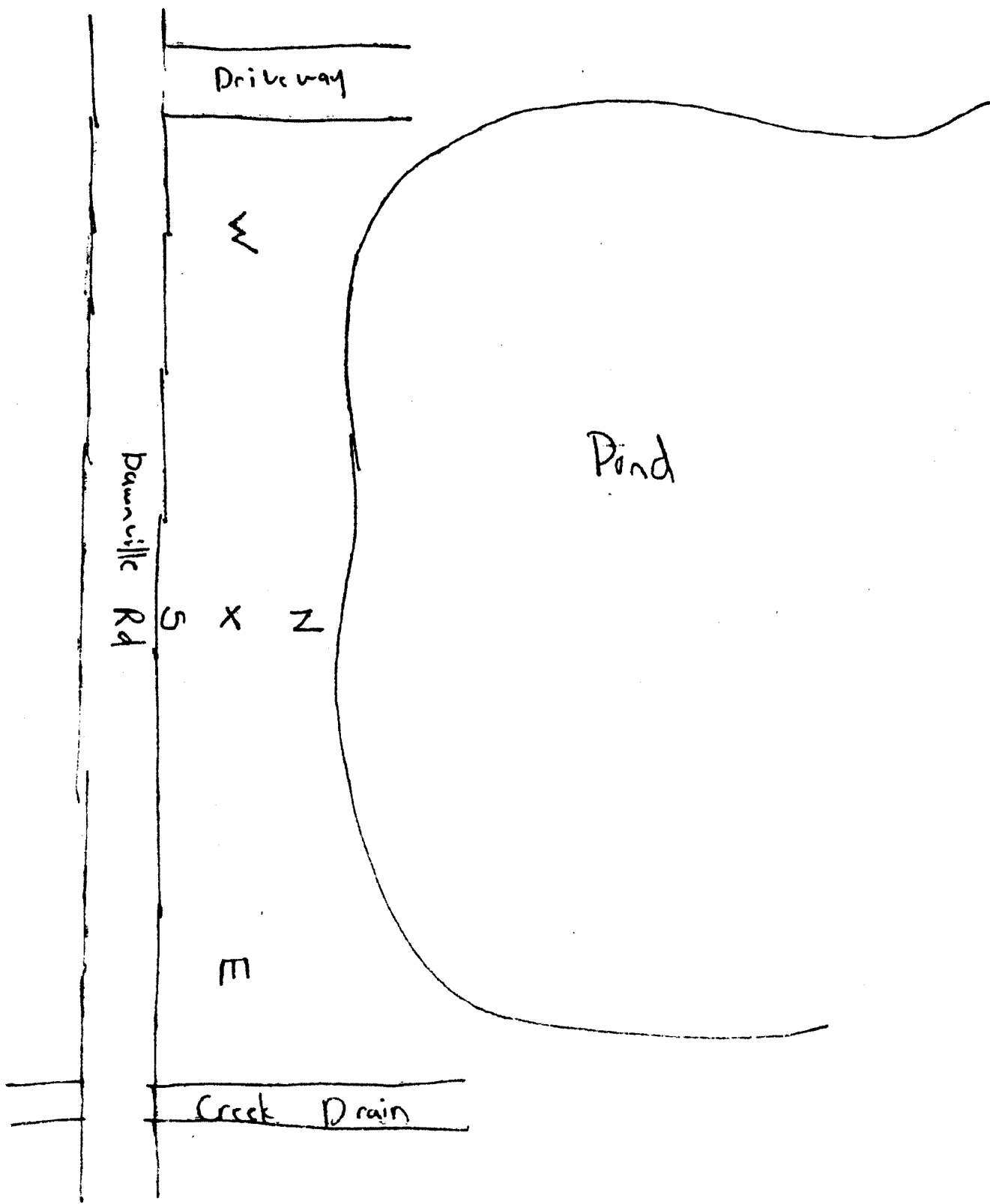
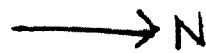
Soil Type: Unavailable

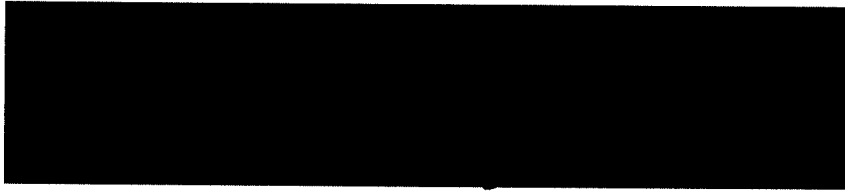




Soil Type: Unavailable

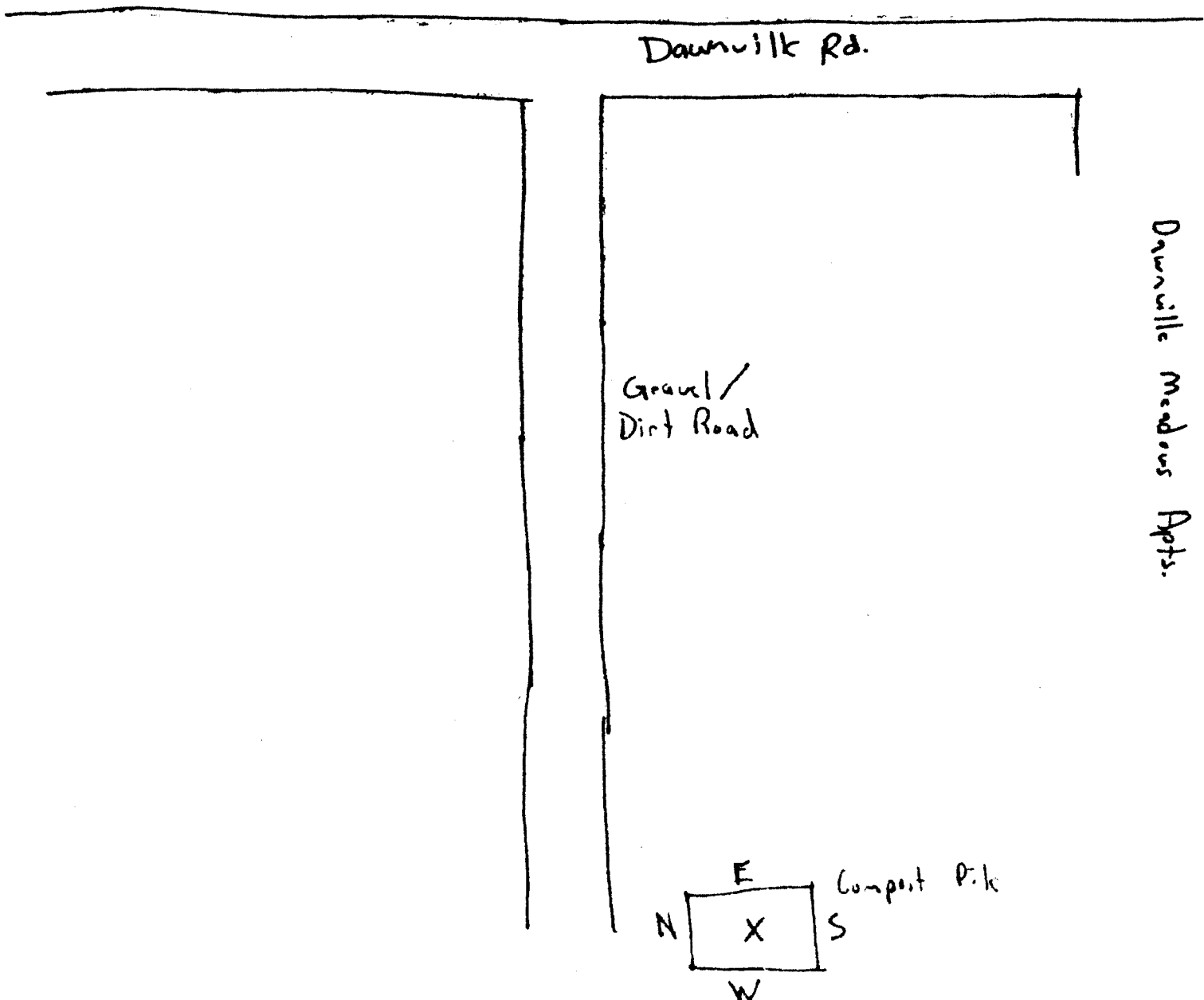


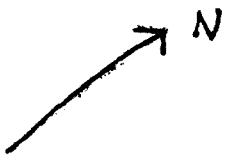




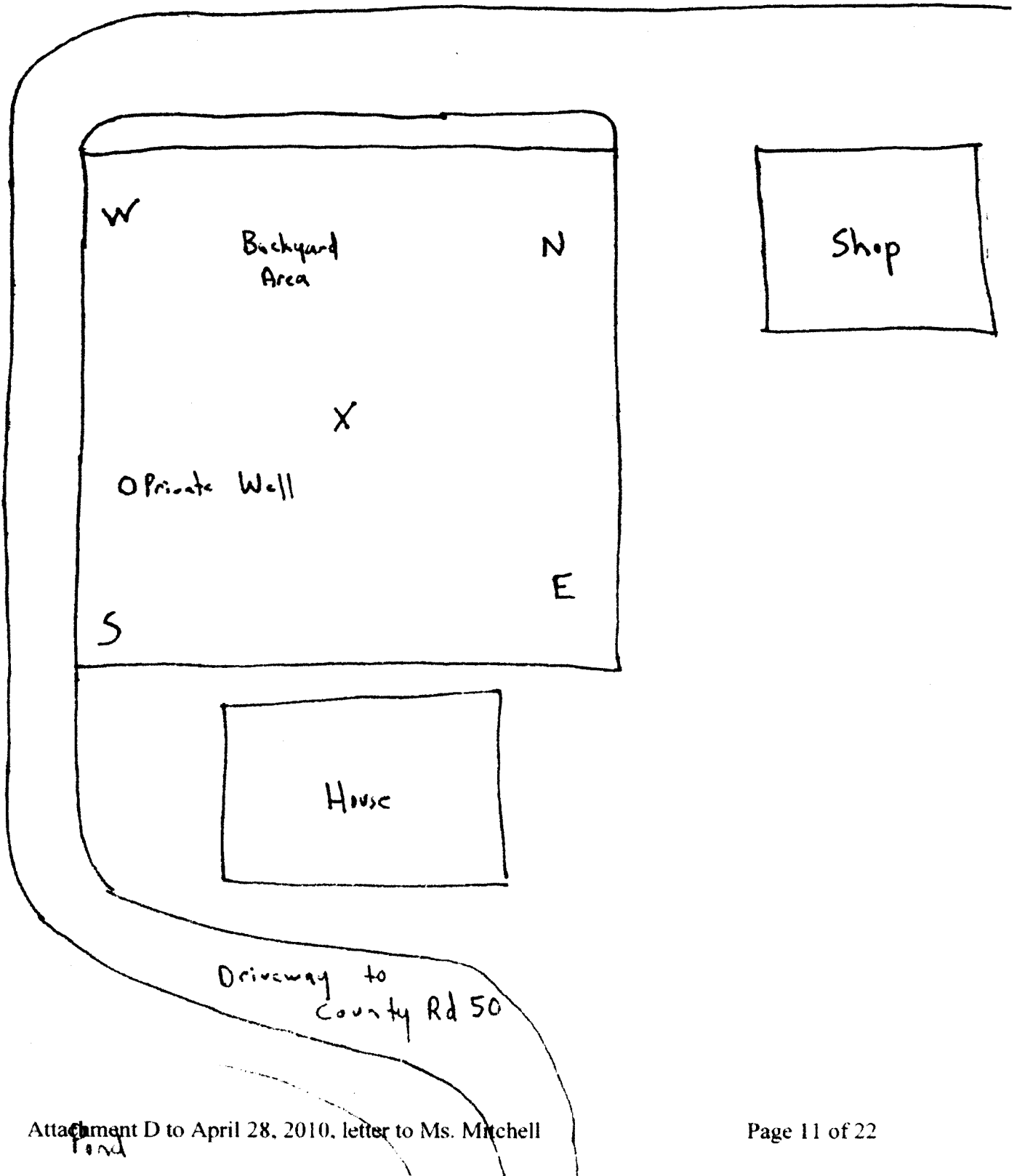
N ←

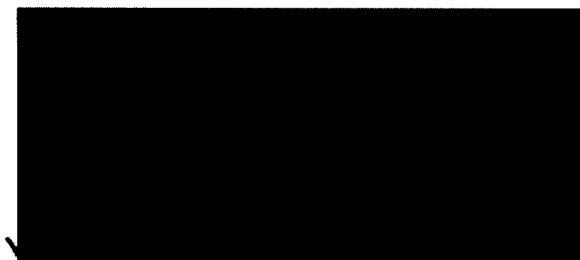
Soil Type: Townley silt loam 6-15%





Soil Type: Unavailable
Second sample collected 1 mile east in open field.



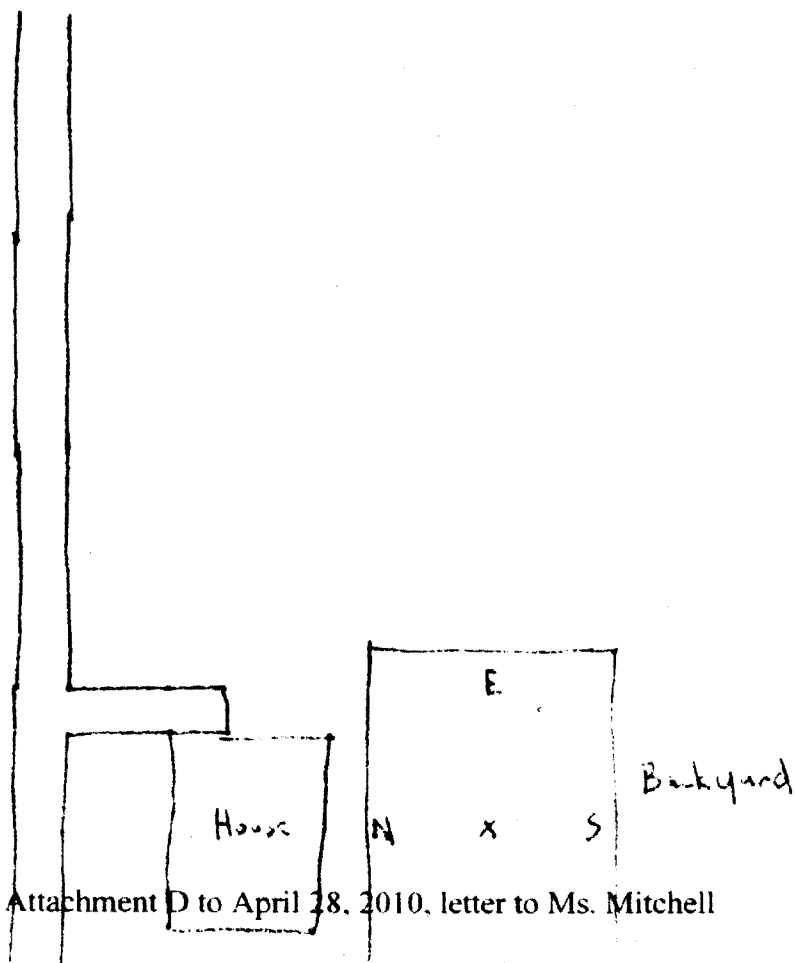


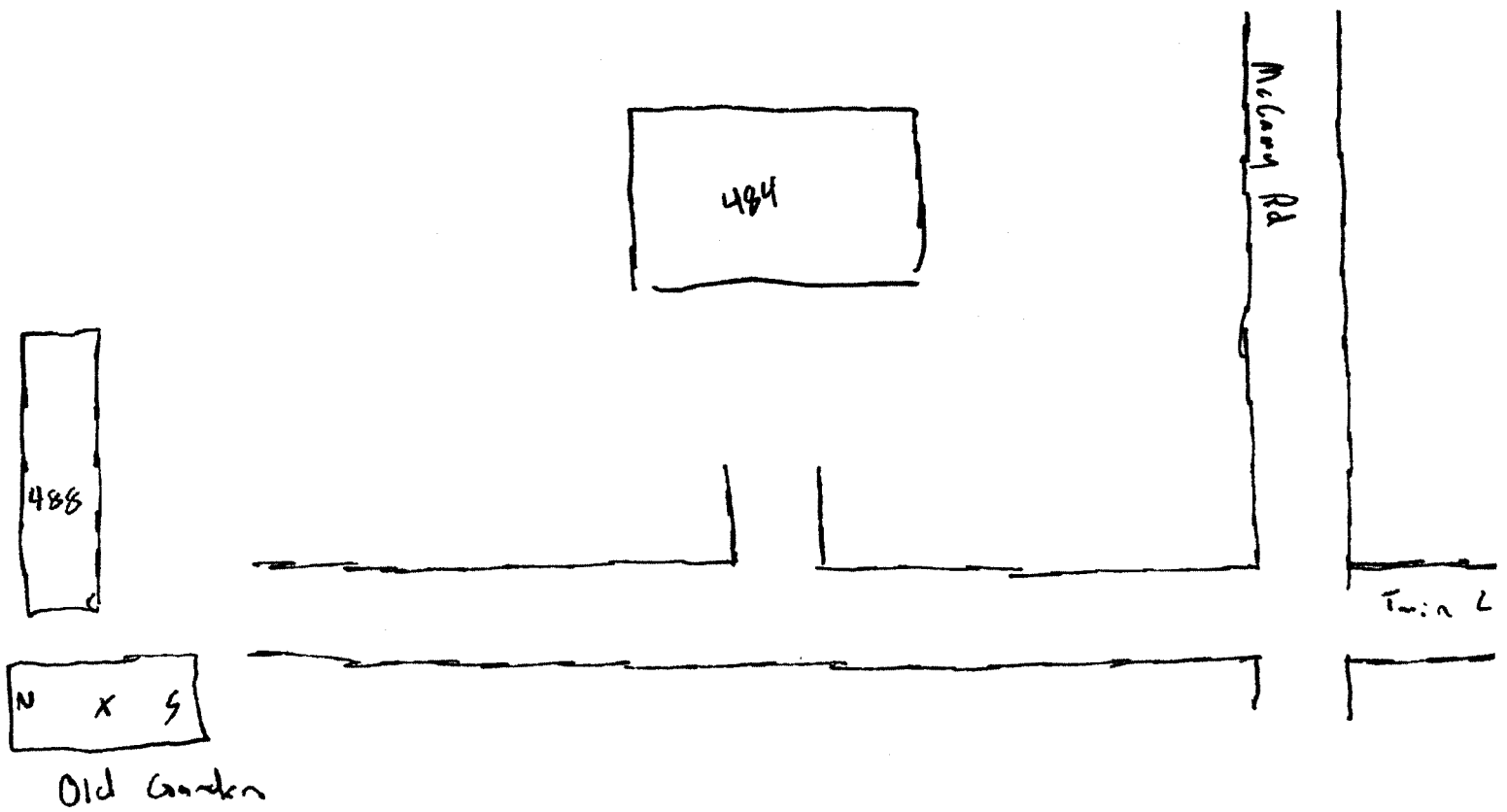
Soil Type: Unvariable

Nickajack Lake

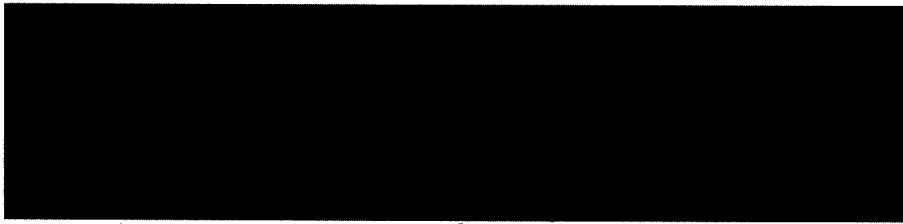


Lat N Don Rd



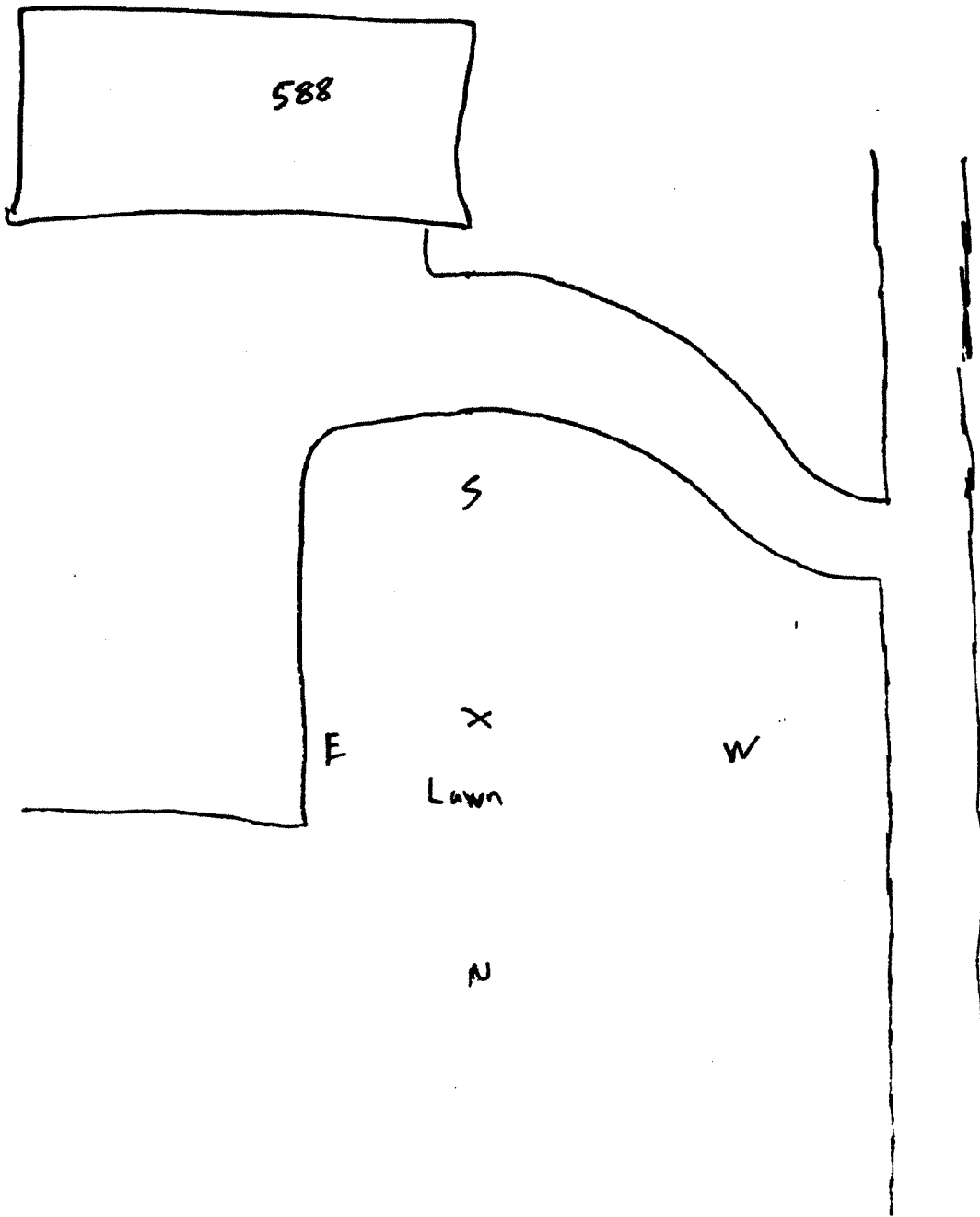


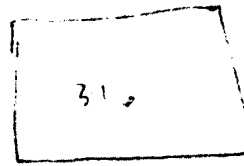
Soil Type: Docena - Conasauga complex Z-6%



Soil Type: Waynesboro sandy loam 2-6%

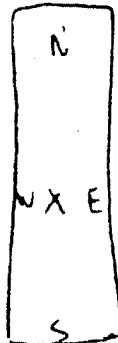
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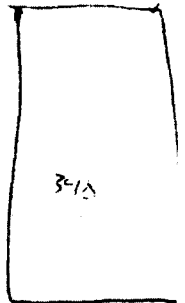


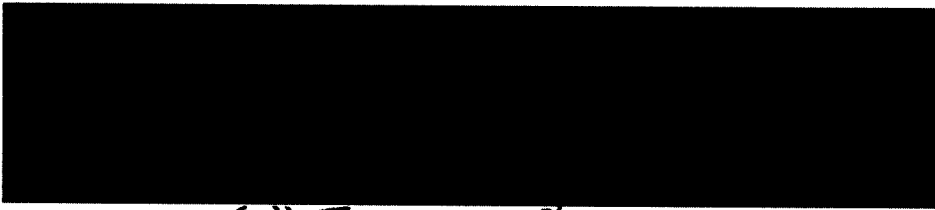
Soil Type: Unavailable

Vegetable
Garden



Driveway





Soil Type: Unavailable

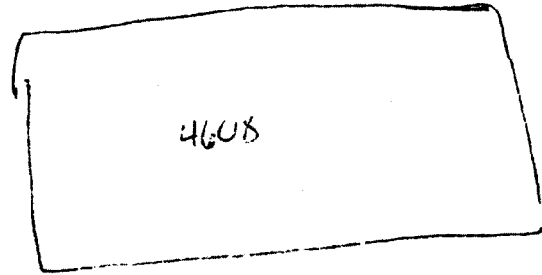
F Lawn

N

X

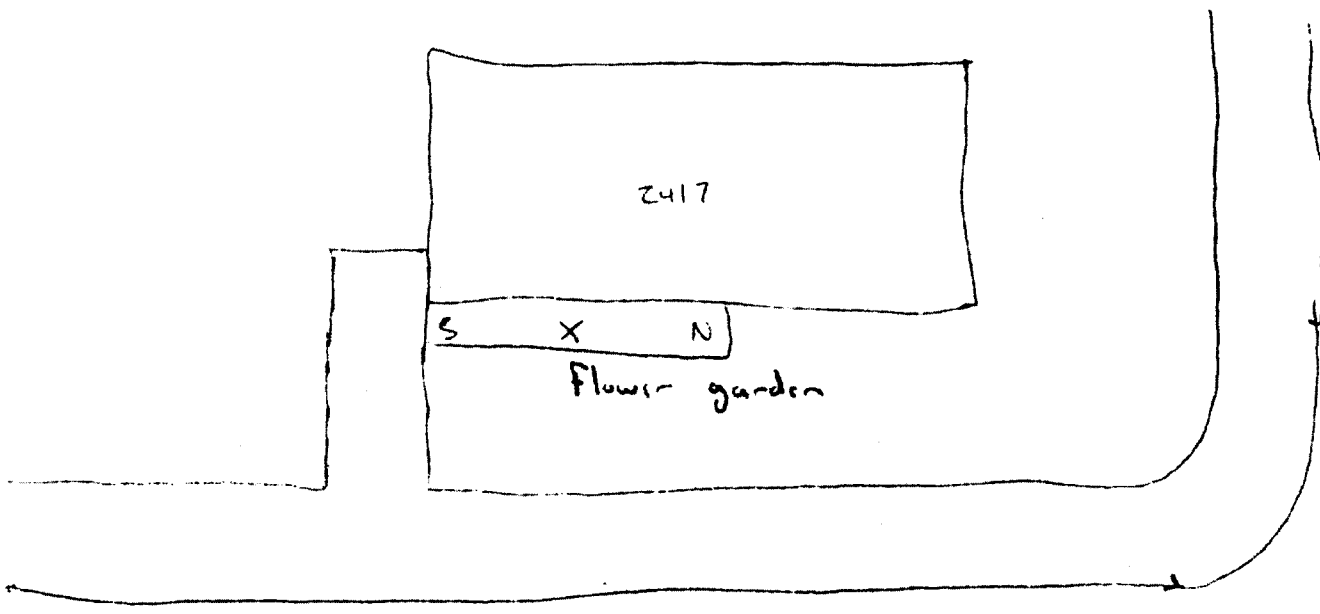
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W

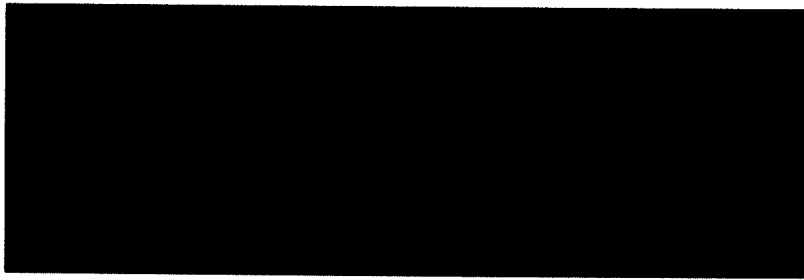
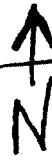




Soil Type: Arkabutla silt loam, occasionally flooded 0-20%



Thompson Loop Rd.



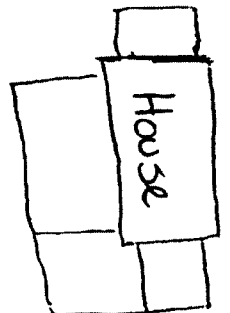
Soil Type: Unavailable

Pleasant Hill Rd.

Driveway

WOODED
AREA

Well

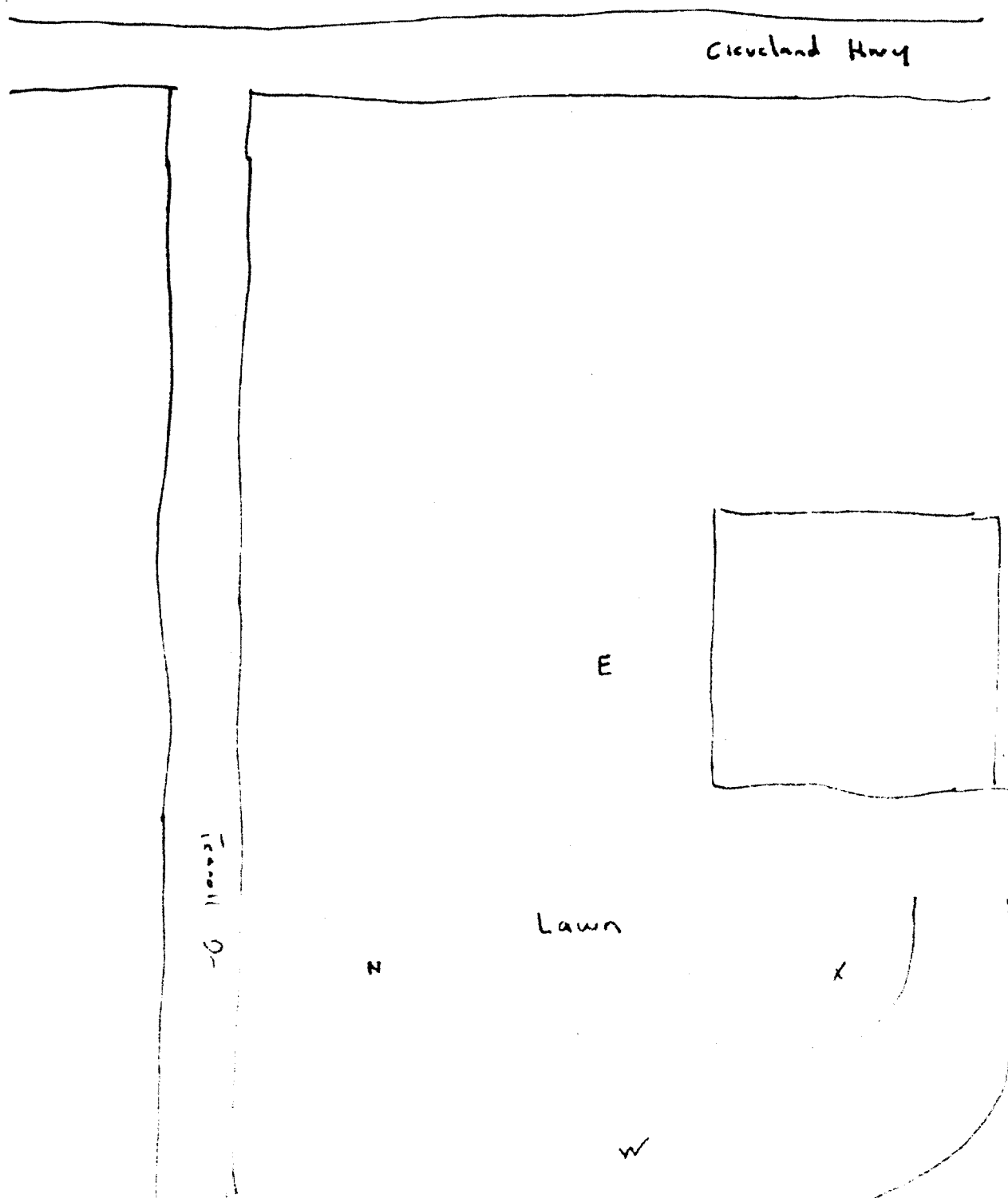


Garden



←
N

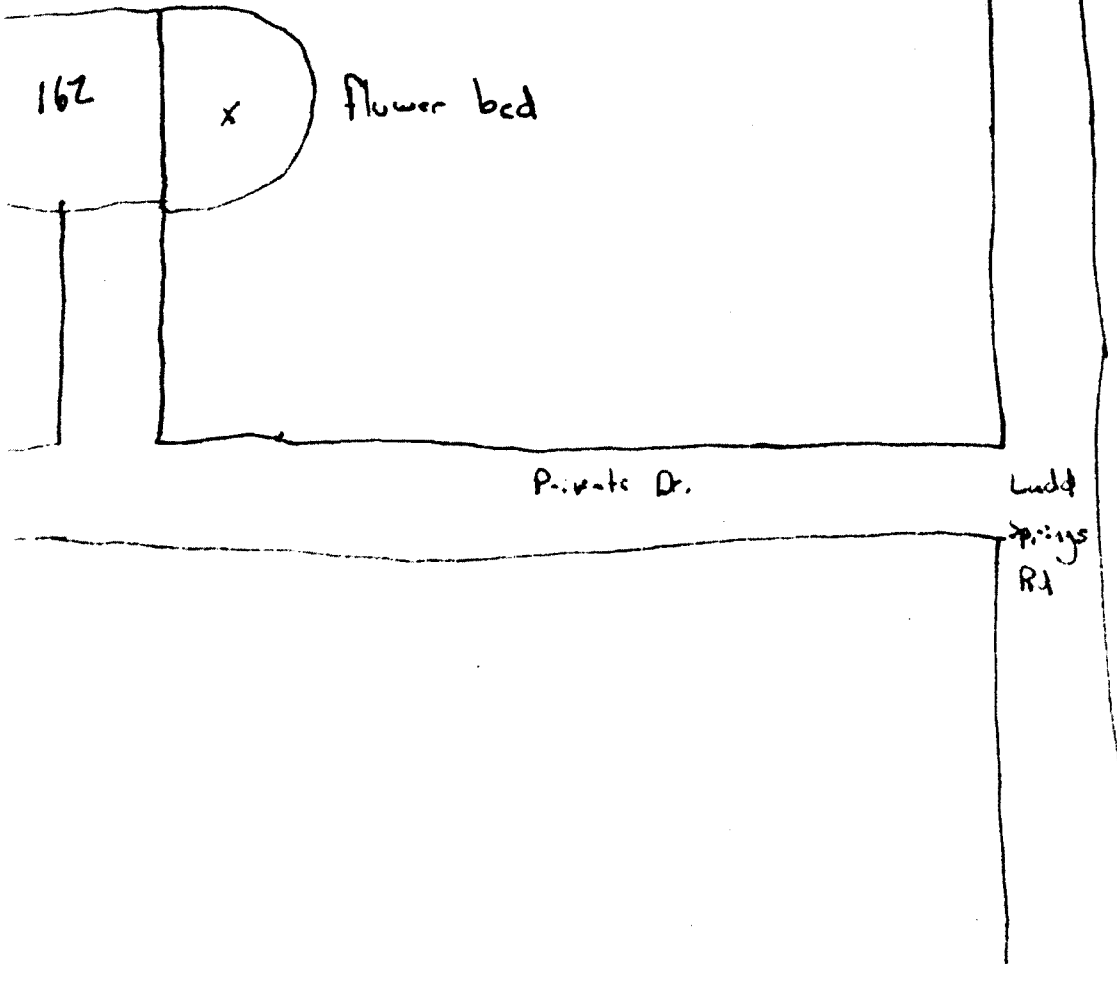
Soil Type: Conasauga silt loam 6-10%

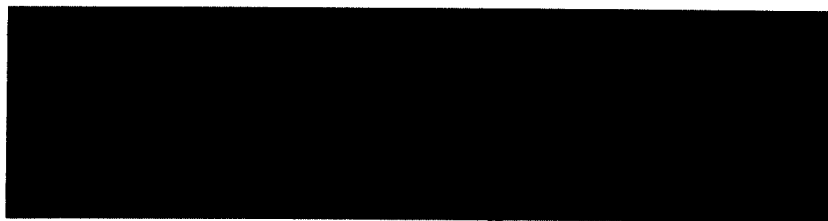




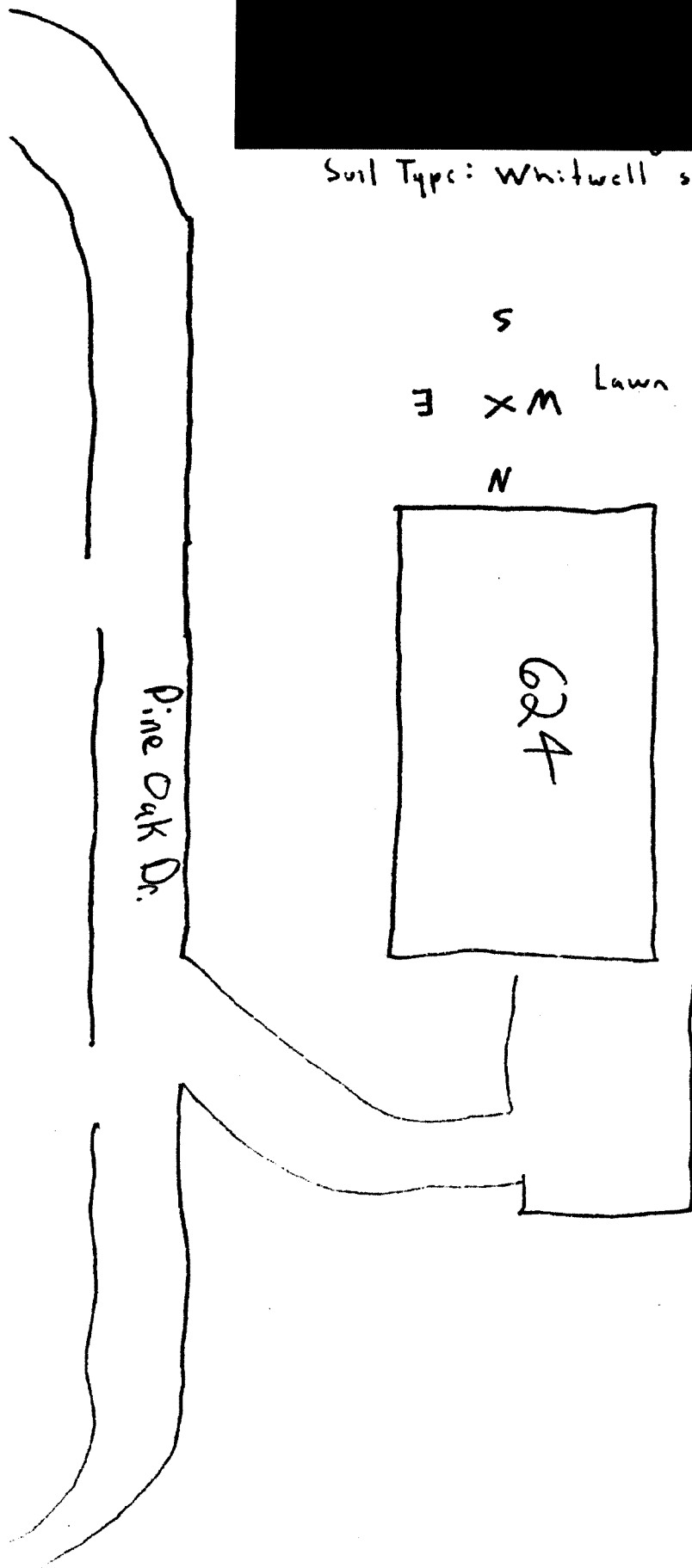
Hwy 313

Soil Type: unavailable





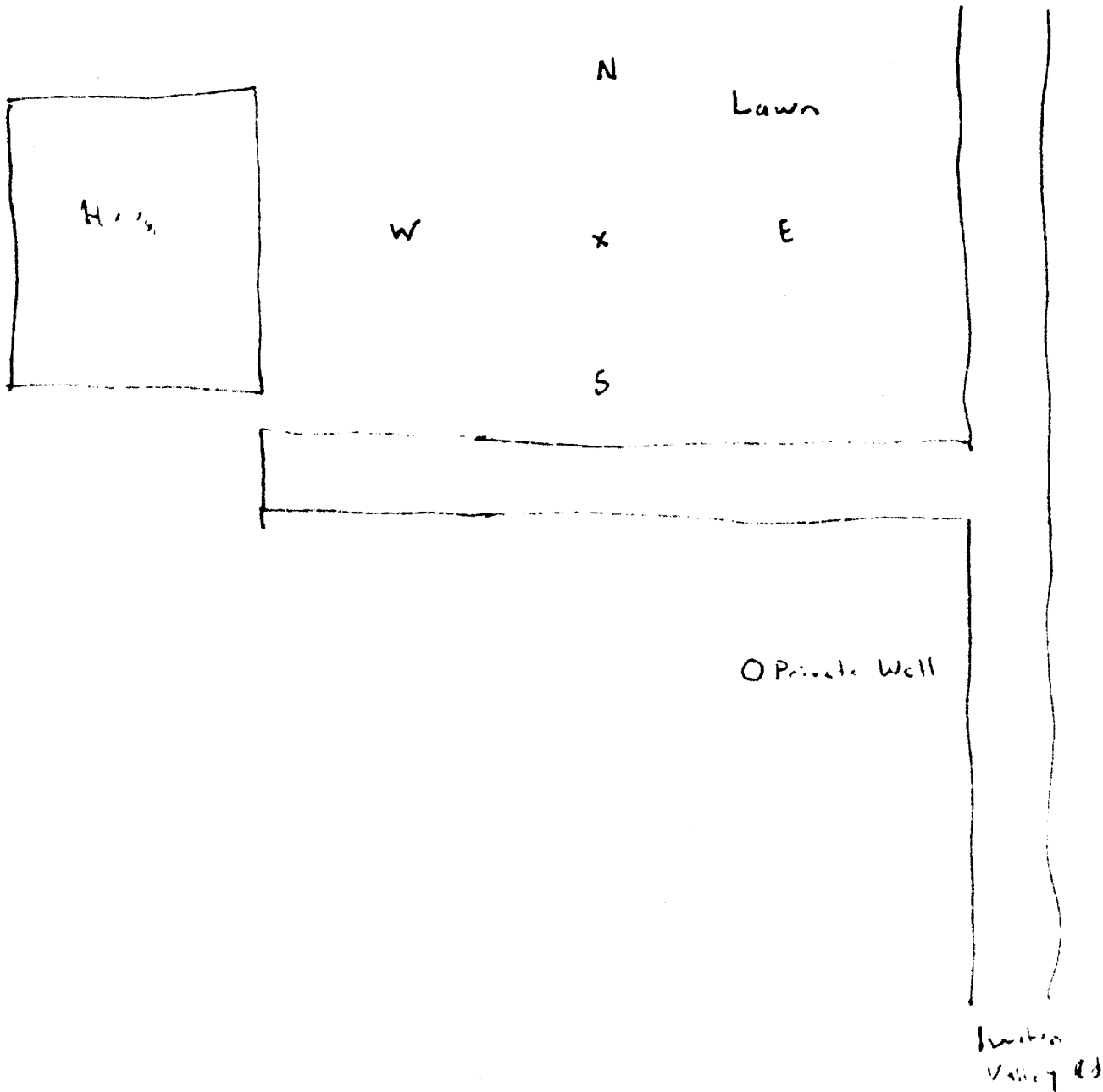
Soil Type: Whitwell silt loam, occasionally flooded 0-2%.





N

Soil Type: Chincoby silt loam, occasionally flooded 0-2%



ALSTON & BIRD LLP

One Atlantic Center
1201 West Peachtree Street
Atlanta, GA 30309-3424

404-881-7000
Fax: 404-881-7777
www.alston.com

Lee A. DeHihns, III

Direct Dial: 404-881-7151

E-mail: lee.dehahns@alston.com

February 4, 2010

VIA UPS OVERNIGHT

Gail Mitchell, Deputy Director
Water Protection Division
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

**Re: October 6, 2009, Information Request – Section 308 of the Clean
Water Act - Dalton Utilities Land Application System**

Dear Ms. Mitchell:

Enclosed with this letter is information from Dalton Utilities in response to EPA's October 6, 2009, Section 308 of the Clean Water Act request (the "Request") addressed to Mr. Don Cope, President and CEO of Dalton Utilities. The enclosures are a letter dated February 3, 2010, with a certification signed pursuant to the Request and information responsive to Paragraphs 2 and 4 of Enclosure A, **Drinking Water Well Monitoring Report and Compost Use Review Report**.

Please contact me if have any questions regarding the information supplied pursuant to the Request.

Sincerely,



Lee A. DeHihns, III

LAD:gba
Enclosures

LEGAL02/31578197v10



February 3, 2010

Ms. Gail Mitchell, Deputy Director
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Information Request Pursuant to Section 308 of the Clean Water Act
Analytical Sample Results

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting the final analytical results received for the sampling conducted as outlined in Dalton Utilities Private Drinking Water Well Monitoring Report and Compost Use Review Report. The results are contained in Attachments A, B, C, D, E, F, and G which are provided herein as bound reports titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Lot # D9K200620, D9K200621, D9L150578, D9L150573, D9L180629, D9K130504, and D9K130510 which contains 287, 511, 395, 387, 241, 151, and 272 pages, respectively.

For your convenience, a summary of the samples identifications indicated in the attachments and the corresponding locations are included in Attachment H.

As stipulated in the aforementioned 308 letter, Dalton Utilities will provide additional results for sampling activities conducted as part of said plans after receiving the final analytical reports.

If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system,

Ms. Gail Mitchell
February 3, 2010
Page 2 of 2

or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,


Don Cope
President & CEO

Attachments (8)

- c: Mr. Allen Barnes, Georgia Environmental Protection Division (cover letter only)
- Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural Resources (cover letter only)
- Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
- Lee A. DeHihns, Esq.

Summary of Sample Identifications and Locations

<u>Attachment</u>	<u>Lot #</u>	<u>Project</u>	<u>Sample ID</u>	<u>Sample Location</u>
A		Private Drinking Water Well Monitoring Report		
A		Private Drinking Water Well Monitoring Report		
A		Private Drinking Water Well Monitoring Report		
A		Private Drinking Water Well Monitoring Report		
A		Private Drinking Water Well Monitoring Report		
A		Private Drinking Water Well Monitoring Report		
A		Private Drinking Water Well Monitoring Report		
B	D9K200621	Compost Use Review Report	11-19-09-01	428 Lock N Dam, Jasper, GA 30143
C	D9L150578	Compost Use Review Report	12-10-09-01	484 McCamy Road, Chatsworth, GA 30705
C	D9L150578	Compost Use Review Report	12-10-09-02	580 Reed Road, Dalton, GA 30720
C	D9L150578	Compost Use Review Report	12-11-09-01	396 Dr Johnson Road, Crandall, GA 30711
C	D9L150578	Compost Use Review Report	12-11-09-02	4068 Keith Valley Road, Cohutta, GA 30710
C	D9L150578	Compost Use Review Report	12-11-09-03	2417 Shahan Drive, Dalton, GA 30720
D	D9L150573	Compost Use Review Report	12-14-09-01	1723 Pleasant Hill Road, Ranger, GA 30734
E	D9L180629	Compost Use Review Report	12-16-09-01	3451 Cleveland Hwy, Dalton, GA 30721
E	D9L180629	Compost Use Review Report	12-16-09-02	162 Ladd Springs Road, Cleveland, TN 37323
E	D9L180629	Compost Use Review Report	12-17-09-01	624 Pin Oak Drive, Dalton, GA 30721
F	D9K130504	Compost Use Review Report	11-06-09-01	34 Stone Brook Path, Chatsworth, GA 30705
F	D9K130504	Compost Use Review Report	11-06-09-02	8843 Forced Creek Lane, Ooltewah, TN 37363
F	D9K130504	Compost Use Review Report	Dup #1	Duplicate - 34 Stone Brook Path, Chatsworth, GA 30705
F	D9K130504	Compost Use Review Report	11-12-09-01	1549 Dawnville Road, Dalton, GA 30721
F	D9K130504	Compost Use Review Report	11-12-09-02	Dawnville Road, Dalton, GA 30721
F	D9K130504	Compost Use Review Report	11-12-09-03	1018 Country Road 50, Athens, TN 37303
F	D9K130504	Compost Use Review Report	11-12-09-04	1018 Country Road 50, Athens, TN 37303
F	D9K130504	Compost Use Review Report	Dup #2	Duplicate - 1018 Country Road 50, Athens, TN 37303
G	D9K130510	Compost Use Review Report	130	1018 Country Road 50, Athens, TN 37303
G	D9K130510	Compost Use Review Report	Dup	Duplicate - 1018 Country Road 50, Athens, TN 37303

ALSTON & BIRD LLP

One Atlantic Center
1201 West Peachtree Street
Atlanta, GA 30309-3424

404-881-7000
Fax: 404-881-7777
www.alston.com

Lee A. DeHihns, III

Direct Dial: 404-881-7151

E-mail: lee.dehahns@alston.com

February 12, 2010

VIA COURIER

Gail Mitchell, Deputy Director
Water Protection Division
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

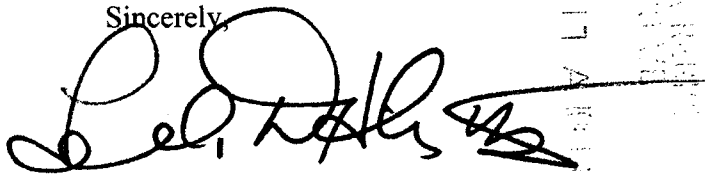
**Re: October 6, 2009, Information Request – Section 308 of the Clean
Water Act - Dalton Utilities Land Application System**

Dear Ms. Mitchell:

Enclosed with this letter is information from Dalton Utilities in response to EPA's October 6, 2009, Section 308 of the Clean Water Act request (the "Request") addressed to Mr. Don Cope, President and CEO of Dalton Utilities. The enclosures are a letter dated February 10, 2010, with a certification signed pursuant to the Request and information responsive to Paragraphs 2-4 of Enclosure A of the Request, **Drinking Water Well Monitoring Report, Composted Biosolids Monitoring Plan and Compost Use Review Report**.

Please contact me if have any questions regarding the information supplied pursuant to the Request.

Sincerely,



Lee A. DeHihns, III

LAD:gba
Enclosures

LEGAL02/31578197v11



February 10, 2010

Ms. Gail Mitchell, Deputy Director
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Information Request Pursuant to Section 308 of the Clean Water Act
Analytical Sample Results

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting the final analytical results received for the sampling conducted as outlined in Dalton Utilities Private Drinking Water Well Monitoring Report, Compost Use Review Report, and Composted Biosolids Monitoring Plan. The results are contained in Attachments A, B, C, D, and E which are provided herein as bound reports titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Lot # D9L180621, D9J310193, D9L310441, D9J310192, and D9J270265 which contains 215, 836, 324, 273, and 828 pages, respectively.

For your convenience, a summary of the samples identifications indicated in the attachments and the corresponding locations are included in Attachment F.

As stipulated in the aforementioned 308 letter, Dalton Utilities will provide additional results for sampling activities conducted as part of said plans after receiving the final analytical reports.

If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system,

Ms. Gail Mitchell
February 10, 2010
Page 2 of 2

or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Cope", with a stylized flourish extending from the end.

Don Cope
President & CEO

Attachments (6)

- c: Mr. Allen Barnes, Georgia Environmental Protection Division (cover letter only)
- Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural Resources (cover letter only)
- Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
- Lee A. DeHihns, Esq.

Summary of Sample Identifications and Locations

<u>Attachment</u>	<u>Lot #</u>	<u>Project</u>	<u>Sample ID</u>	<u>Sample Location/Description</u>
A		Private Drinking Water Well Monitoring Report		
A		Private Drinking Water Well Monitoring Report		
B	D9J310193	Compost Use Review Report	10-28-09-1	1975 Hwy 52 East, Chatsworth, GA 30705
B	D9J310193	Compost Use Review Report	10-28-09-2	55 South Lake Drive, Chatsworth, GA 30705
B	D9J310193	Compost Use Review Report	10-28-09-3	1727 Dennis Mill Rd, Chatsworth, GA 30705
B	D9J310193	Compost Use Review Report	10-28-09-4	208 Mountain Trail, Lafayette, GA 30728
B	D9J310193	Compost Use Review Report	10-28-09-5	3158 Morris Road, Rocky Face, GA 30740
B	D9J310193	Compost Use Review Report	10-30-09-1	454 Jim Petty Road, Crandall, GA 30711
B	D9J310193	Compost Use Review Report	Dup	Duplicate - 1975 Hwy 52 East, Chatsworth, GA 30705
C	D9L310441	Compost Use Review Report	12-21-09-01	1095 Houston Valley Road, Rocky Face, GA 30740
D	D9J310192	Compost Use Review Report	1727 Dennis Mill Rd	1727 Dennis Mill Rd, Chatsworth, GA 30705
E	D9J270265	Composted Biosolids Monitoring Plan	AB-13	6 month old compost
E	D9J270265	Composted Biosolids Monitoring Plan	AB-5	12 month old compost
E	D9J270265	Composted Biosolids Monitoring Plan	AA-2	18 month old compost
E	D9J270265	Composted Biosolids Monitoring Plan	AB-13	6 month old compost
E	D9J270265	Composted Biosolids Monitoring Plan	AB-5	12 month old compost
E	D9J270265	Composted Biosolids Monitoring Plan	AA-2	18 month old compost

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

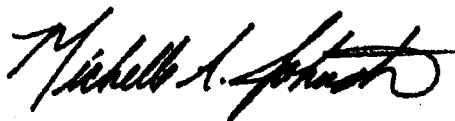
2010 JUL -9 A 9 30

TestAmerica

ANALYTICAL REPORT

Job Number: 280-3824-1
Job Description: Dalton PFC Analysis

For:
Dalton Utilities
1200 V.D. Parrott Jr. Parkway
Dalton, GA 30721
Attention: Ms. Dena Haverland



Approved for release.
Michelle Johnston
Project Manager I
6/23/2010 8:08 AM

Michelle Johnston
Project Manager I
michelle.johnston@testamericainc.com
06/23/2010

The test results in this report relate only to the samples in this report and meet all requirements of NELAP, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com



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CASE NARRATIVE
Client: Dalton Utilities
Project: PFC Analysis
Report Number: 280-3824-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The following report contains the analytical results for nine water samples received at TestAmerica Denver on May 25, 2010, according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 2.7°C. No anomalies were encountered during sample receipt.

PFC

Samples [REDACTED]

samples were prepared on 05/26/2010 and 06/04/2010 and analyzed on 06/02/2010 and 06/07/2010.

Due to high and low internal standard recoveries in the sample, sample [REDACTED] was re-extracted out of the laboratory prescribed hold time and reanalyzed in prep batch 280-18069 (analytical batch 280-18299). Both batches are included in this report. Please note the sample results should be considered estimated.

The internal standard recoveries for 13C2PFDA, 13C2PFUnA, 13C8PFOA, 13C8PFOS, and 1802PFHxS associated with prep batch 280-17041 (analytical batch 280-17751) were recovered outside the control limits in sample [REDACTED]. Upon re-extraction past hold time and re-analysis, internal standard recovery outliers were still present, demonstrating that this anomaly is most likely due to matrix interference. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the recommended sample holding time.

The method required MS/MSD analyses could not be performed on prep batches 280-17041 and 280-18069, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD data.

Refer to the QC report for details.

No other difficulties were encountered during the PFC analyses.

All other quality control parameters were within the acceptance limits.

FOSA

Samples [REDACTED]

samples were prepared on 05/26/2010 and analyzed on 06/07/2010.

The method required MS/MSD analyses could not be performed on prep batch 280-17045 (analytical batch 280-18230), due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD data.

No other difficulties were encountered during the FOSA analyses.

All quality control parameters were within the acceptance limits.

LCMS MANUAL INTEGRATION SUMMARY

Pg 1710

Lab Name: TestAmerica Denver Job No.: 280-3824-1

SDG No.: _____

Instrument ID: LC_LCMS5 Analysis Batch Number: 17750

Lab Sample ID: ICV 280-17750/10 Client Sample ID: _____

Date Analyzed: 06/02/10 13:46 Lab File ID: pc50F02012.d

S. Castagni 6-14-10
GC Column: Eclipse+C18 ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorohexanoic acid (PFHxA)	6.08	Split Peak	meyera	06/03/10 07:00

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LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-3824-1
 Site No.: _____
 Instrument ID: LC_LCMS5 Analysis Batch Number: 17751
 Lab Sample ID: MB 280-17041/1-A Client Sample ID: _____
 Date Analyzed: 06/02/10 13:58 Lab File ID: pc50F02013.d GC Column: Eclipse+C18 ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.31	Baseline	meyera	06/03/10 07:04
13C5 PFNA	7.06	Wrong peak	meyera	06/03/10 07:04
13C2 PFDA	7.31	Wrong peak	meyera	06/03/10 07:04

Lab Sample ID: LCS 280-17041/2-A Client Sample ID: _____
 Date Analyzed: 06/02/10 14:11 Lab File ID: pc50F02014.d GC Column: Eclipse+C18 ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.27	Wrong peak	meyera	06/03/10 07:08
Perfluorobutanioc acid (PFBA)	4.27	Wrong peak	meyera	06/03/10 07:08
18O2 PFHxS	6.39	Wrong peak	meyera	06/03/10 07:08
13C2 PFDA	7.26	Wrong peak	meyera	06/03/10 07:08
13C2 PFUnA	7.50	Baseline	meyera	06/03/10 07:08
13C2 PFDoA	7.65	Baseline	meyera	06/03/10 07:08

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-3824-1

SDG No.: _____

Instrument ID: LC_LCMS5 Analysis Batch Number: 17751

Lab Sample ID: LCSD 280-17041/3-A Client Sample ID: _____

Date Analyzed: 06/02/10 14:24 Lab File ID: pc50F02015.d GC Column: Eclipse+C18 ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	4.24	Wrong peak	meYera	06/03/10 07:14
13C4 PFBA	4.25	Wrong peak	meYera	06/03/10 07:14
Perfluoropentanoic acid (PFPA)	5.33	Wrong peak	meYera	06/03/10 07:14
Perfluorobutane Sulfonate (PFBS)	5.45	Wrong peak	meYera	06/03/10 07:14
13C2 PFHxA	5.92	Wrong peak	meYera	06/03/10 07:14
Perfluorohexanoic acid (PFHxA)	5.93	Wrong peak	meYera	06/03/10 07:14
18O2 PFHxS	6.36	Wrong peak	meYera	06/03/10 07:14
Perfluorohexane Sulfonate (PFHxS)	6.36	Wrong peak	meYera	06/03/10 07:14
Perfluorooctanoic acid (PFOA)	6.70	Wrong peak	meYera	06/03/10 07:14
13C2 PFDA	7.24	Wrong peak	meYera	06/03/10 07:14
13C2 PFUnA	7.47	Wrong peak	meYera	06/03/10 07:14
13C2 PFDoA	7.64	Wrong peak	meYera	06/03/10 07:14
Perfluorotridecanoic Acid (PFTriA)	7.78	Wrong peak	meYera	06/03/10 07:14

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LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-3824-1

Instrument ID: LC LCMS5 Analysis Batch Number: [REDACTED]

Lab Sample ID: [REDACTED] Client Sample ID: [REDACTED]

Date Analyzed: 06/02/10 14:37 Lab File ID: [REDACTED] GC Column: Eclipse+C18 ID: [REDACTED]

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	4.22	Wrong peak	meYera	06/03/10 07:18
13C4 PFBA	4.23	Wrong peak	meYera	06/03/10 07:18
Perfluoropentanoic acid (PFPA)	5.32	Wrong peak	meYera	06/03/10 07:18
Perfluorobutane Sulfonate (PFBS)	5.43	Wrong peak	meYera	06/03/10 07:18
13C2 PFHxA	5.91	Wrong peak	meYera	06/03/10 07:18
Perfluorohexanoic acid (PFHxA)	5.93	Wrong peak	meYera	06/03/10 07:17
Perfluoroheptanoic acid (PFHpA)	6.33	Wrong peak	meYera	06/03/10 07:17
Perfluorohexane Sulfonate (PFHxS)	6.34	Baseline	meYera	06/03/10 07:17
1802 PFHxS	6.35	Wrong peak	meYera	06/03/10 07:17
13C8 PFCA	6.70	Wrong peak	meYera	06/03/10 07:17
13C8 PFOS	6.96	Wrong peak	meYera	06/03/10 07:17
13C5 PFNA	6.98	Wrong peak	meYera	06/03/10 07:17
13C2 PFDA	7.22	Wrong peak	meYera	06/03/10 07:17
13C2 PFDoA	7.62	Wrong peak	meYera	06/03/10 07:17

Lab Sample ID: [REDACTED] Client Sample ID: [REDACTED]

Date Analyzed: 06/02/10 14:50 Lab File ID: pc50F02017.d GC Column: Eclipse+C18 ID: [REDACTED]

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.20	Wrong peak	meYera	06/03/10 07:20
Perfluorohexanoic acid (PFHxA)	5.86	Wrong peak	meYera	06/03/10 07:20
13C2 PFHxA	5.91	Wrong peak	meYera	06/03/10 07:20
13C5 PFNA	6.97	Wrong peak	meYera	06/03/10 07:21
13C2 PFUnA	7.42	Wrong peak	meYera	06/03/10 07:21
13C2 PFDoA	7.60	Wrong peak	meYera	06/03/10 07:21

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LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: [REDACTED]
 SDG No.: [REDACTED]
 Instrument ID: LC LCMS5 Analysis Batch Number: [REDACTED]
 Lab Sample ID: [REDACTED] Client Sample ID: [REDACTED]
 Date Analyzed: 06/02/10 15:02 Lab File ID: [REDACTED] GC Column: Eclipse+C18 ID: [REDACTED]

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.18	Wrong peak	meYera	06/03/10 07:25
Perfluorobutane Sulfonate (PFBS)	5.43	Wrong peak	meYera	06/03/10 07:25
13C2 PFHxA	5.89	Wrong peak	meYera	06/03/10 07:25
Perfluorohexanoic acid (PFHxA)	5.90	Wrong peak	meYera	06/03/10 07:25
1802 PFHxS	6.33	Wrong peak	meYera	06/03/10 07:25
13C8 PFOA	6.68	Wrong peak	meYera	06/03/10 07:25
Perfluorooctanoic acid (PFOA)	6.68	Wrong peak	meYera	06/03/10 07:25
Perfluorooctane Sulfonate (PFOS)	6.92	Split Peak	meYera	06/03/10 07:25
13C5 PFNA	6.96	Wrong peak	meYera	06/03/10 07:25
13C2 PFDA	7.20	Wrong peak	meYera	06/03/10 07:25
13C2 PFUnA	7.40	Wrong peak	meYera	06/03/10 07:25
13C2 PFDoA	7.60	Wrong peak	meYera	06/03/10 07:25

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LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver

Job No.: [REDACTED]

Lab No.:

Instrument ID: LC_LCMS5

Analysis Batch Number: [REDACTED]

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 06/02/10 15:15

Lab File ID: [REDACTED]

GC Column: Eclipse+C18

ID: [REDACTED]

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.15	Wrong peak	mevera	06/03/10 07:28
Perfluorobutanoic acid (PFBA)	4.18	Wrong peak	mevera	06/03/10 07:28
Perfluoropentanoic acid (PFPA)	5.28	Wrong peak	mevera	06/03/10 07:28
Perfluorobutane Sulfonate (PFBS)	5.40	Wrong peak	mevera	06/03/10 07:28
Perfluorohexanoic acid (PFHxA)	5.87	Wrong peak	mevera	06/03/10 07:28
13C2 PFHxA	5.88	Wrong peak	mevera	06/03/10 07:28
1802 PFHxS	6.31	Wrong peak	mevera	06/03/10 07:28
Perfluorohexane Sulfonate (PFHxS)	6.34	Split Peak	mevera	06/03/10 07:28
13C8 PFOA	6.66	Wrong peak	mevera	06/03/10 07:28
13C5 PFNA	6.95	Wrong peak	mevera	06/03/10 07:28
Perfluorononanoic acid (PFNA)	6.95	Wrong peak	mevera	06/03/10 07:28
Perfluorodecanoic acid (PFDA)	7.18	Wrong peak	mevera	06/03/10 07:28
13C2 PFDA	7.19	Wrong peak	mevera	06/03/10 07:28
13C2 PFUnA	7.39	Wrong peak	mevera	06/03/10 07:28
13C2 PFDoA	7.58	Wrong peak	mevera	06/03/10 07:28

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver

Job No.: [REDACTED]

SDG No.:

Instrument ID: LC_LCMS5

Analysis Batch Number: [REDACTED]

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 06/02/10 15:28

Lab File ID: [REDACTED]

GC Column: Eclipse+C18

ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.17	Wrong peak	meYera	06/03/10 07:35
Perfluorobutane Sulfonate (PFBS)	5.40	Wrong peak	meYera	06/03/10 07:35
13C2 PFHxA	5.87	Wrong peak	meYera	06/03/10 07:35
Perfluorohexanoic acid (PFHxA)	5.91	Wrong peak	meYera	06/03/10 07:35
Perfluoroheptanoic acid (PFHpA)	6.29	Wrong peak	meYera	06/03/10 07:35
Perfluorohexane Sulfonate (PFHxS)	6.30	Split Peak	meYera	06/03/10 07:35
1802 PFHxS	6.31	Wrong peak	meYera	06/03/10 07:35
13C8 PFOA	6.65	Wrong peak	meYera	06/03/10 07:35
Perfluorooctanoic acid (PFOA)	6.69	Wrong peak	meYera	06/03/10 07:35
Perfluorooctane Sulfonate (PFOS)	6.86	Wrong peak	meYera	06/03/10 07:35
13C8 PFOS	6.93	Wrong peak	meYera	06/03/10 07:35
13C5 PFNA	6.95	Wrong peak	meYera	06/03/10 07:35
13C2 PFDA	7.18	Wrong peak	meYera	06/03/10 07:35
13C2 PFDoA	7.57	Wrong peak	meYera	06/03/10 07:35

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LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.:

Instrument ID: LC_LCMS5 Analysis Batch Number:

Lab Sample ID: Client Sample ID:

Date Analyzed: 06/02/10 15:41 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.26	Wrong peak	meYera	06/03/10 07:40
Perfluorobutanoic acid (PFBA)	4.26	Wrong peak	meYera	06/03/10 07:40
Perfluoropentanoic acid (PFPA)	5.33	Wrong peak	meYera	06/03/10 07:40
13C2 PFHxA	5.92	Wrong peak	meYera	06/03/10 07:40
Perfluorohexanoic acid (PFHxA)	5.92	Wrong peak	meYera	06/03/10 07:40
Perfluoroheptanoic acid (PFHpA)	6.34	Wrong peak	meYera	06/03/10 07:40
13C8 PFOA	6.69	Wrong peak	meYera	06/03/10 07:40
13C4 PFOA	6.70	Wrong peak	meYera	06/03/10 07:40
Perfluorononanoic acid (PFNA)	6.97	Wrong peak	meYera	06/03/10 07:40
13C5 PFNA	6.98	Wrong peak	meYera	06/03/10 07:40
MeFOA (Surr)	7.21	Wrong peak	meYera	06/03/10 07:40
Perfluorodecanoic acid (PFDA)	7.21	Wrong peak	meYera	06/03/10 07:40
13C2 PFDA	7.22	Wrong peak	meYera	06/03/10 07:40
13C2 PFUnA	7.41	Wrong peak	meYera	06/03/10 07:40
Perfluoroundecanoic acid (PFUnA)	7.42	Wrong peak	meYera	06/03/10 07:40
13C2 PFDoA	7.60	Wrong peak	meYera	06/03/10 07:40
Perfluorotridecanoic Acid (PFTriA)	7.73	Wrong peak	meYera	06/03/10 07:40

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.:
 SDG No.:
 Instrument ID: LC LCMS5 Analysis Batch Number:
 Lab Sample ID: Client Sample ID:
 Date Analyzed: 06/02/10 15:54 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	4.09	Wrong peak	meYera	06/03/10 07:44
13C4 PFBA	4.15	Wrong peak	meYera	06/03/10 07:44
Perfluoropentanoic acid (PFPA)	5.33	Wrong peak	meYera	06/03/10 07:44
Perfluorobutane Sulfonate (PFBS)	5.45	Wrong peak	meYera	06/03/10 07:44
13C2 PFHxA	5.87	Wrong peak	meYera	06/03/10 07:44
Perfluorohexanoic acid (PFHxA)	5.89	Wrong peak	meYera	06/03/10 07:44
Perfluoroheptanoic acid (PFHpA)	6.29	Wrong peak	meYera	06/03/10 07:44
1802 PFHxS	6.31	Wrong peak	meYera	06/03/10 07:44
Perfluorooctanoic acid (PFOA)	6.64	Wrong peak	meYera	06/03/10 07:44
13C8 PFOA	6.65	Wrong peak	meYera	06/03/10 07:44
Perfluorooctane Sulfonate (PFOS)	6.88	Wrong peak	meYera	06/03/10 07:44
13C8 PFOS	6.93	Wrong peak	meYera	06/03/10 07:44
13C5 PFNA	6.94	Wrong peak	meYera	06/03/10 07:44
13C2 PFDA	7.19	Wrong peak	meYera	06/03/10 07:44
13C2 PFUnA	7.38	Wrong peak	meYera	06/03/10 07:44
13C2 PFDoA	7.56	Wrong peak	meYera	06/03/10 07:44

LCMS MANUAL INTEGRATION SUMMARY

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Instrument ID: LC_LCMS5 Analysis Batch Number:
 Lab Sample ID: Client Sample ID:
 Date Analyzed: 06/02/10 16:06 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.15	Wrong peak	meyera	06/03/10 07:48
Perfluorobutanoic acid (PFBA)	4.15	Wrong peak	meyera	06/03/10 07:48
Perfluoropentanoic acid (PFPA)	5.30	Wrong peak	meyera	06/03/10 07:48
13C2 PFHxA	5.86	Wrong peak	meyera	06/03/10 07:48
Perfluorohexanoic acid (PFHxA)	5.86	Wrong peak	meyera	06/03/10 07:48
Perfluoroheptanoic acid (PFHpA)	6.29	Wrong peak	meyera	06/03/10 07:48
13C8 PFOA	6.64	Wrong peak	meyera	06/03/10 07:48
Perfluorooctanoic acid (PFOA)	6.64	Wrong peak	meyera	06/03/10 07:48
13C5 PFNA	6.93	Wrong peak	meyera	06/03/10 07:48
13C2 PFDA	7.17	Wrong peak	meyera	06/03/10 07:48
13C2 PFUnA	7.37	Wrong peak	meyera	06/03/10 07:48
13C2 PFDoA	7.55	Wrong peak	meyera	06/03/10 07:48

LCMS MANUAL INTEGRATION SUMMARY

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Lab Name: TestAmerica Denver Job No.:
 SDG No.:
 Instrument ID: LC_LCMS5 Analysis Batch Number:
 Lab Sample ID: Client Sample ID:
 Date Analyzed: 06/02/10 16:19 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.12	Split Peak	meYera	06/03/10 07:52
Perfluorobutanoic acid (PFBA)	4.15	Split Peak	meYera	06/03/10 07:52
Perfluoropentanoic acid (PFPA)	5.26	Wrong peak	meYera	06/03/10 07:52
13C2 PFHxA	5.85	Wrong peak	meYera	06/03/10 07:52
Perfluorohexanoic acid (PFHxA)	5.86	Wrong peak	meYera	06/03/10 07:52
Perfluorohexane Sulfonate (PFHxS)	6.28	Wrong peak	meYera	06/03/10 07:52
18O2 PFHxS	6.29	Wrong peak	meYera	06/03/10 07:52
Perfluoroheptanoic acid (PFHpA)	6.29	Wrong peak	meYera	06/03/10 07:52
Perfluorooctanoic acid (PFOA)	6.62	Wrong peak	meYera	06/03/10 07:52
13C8 PFOA	6.63	Wrong peak	meYera	06/03/10 07:52
Perfluorooctane Sulfonate (PFOS)	6.88	Wrong peak	meYera	06/03/10 07:52
Perfluorononanoic acid (PFNA)	6.90	Wrong peak	meYera	06/03/10 07:52
13C8 PFOS	6.91	Wrong peak	meYera	06/03/10 07:52
13C5 PFNA	6.92	Wrong peak	meYera	06/03/10 07:52
13C2 PFDA	7.17	Wrong peak	meYera	06/03/10 07:52
13C2 PFUnA	7.39	Wrong peak	meYera	06/03/10 07:52
13C2 PFDoA	7.55	Wrong peak	meYera	06/03/10 07:52

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LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.:
 SDC:
 Instrument ID: LC_LCMS5 Analysis Batch Number:
 Lab Sample ID: Client Sample ID:
 Date Analyzed: 06/02/10 16:32 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.15	Wrong peak	meYera	06/03/10 07:55
Perfluorobutanoic acid (PFBA)	4.17	Wrong peak	meYera	06/03/10 07:55
Perfluoropentanoic acid (PFPA)	5.28	Wrong peak	meYera	06/03/10 07:55
13C2 PFHxA	5.85	Wrong peak	meYera	06/03/10 07:55
Perfluorohexanoic acid (PFHxA)	5.85	Wrong peak	meYera	06/03/10 07:55
Perfluoroheptanoic acid (PFHpA)	6.31	Wrong peak	meYera	06/03/10 07:55
Perfluorooctanoic acid (PFOA)	6.62	Wrong peak	meYera	06/03/10 07:55
13C8 PFOA	6.63	Wrong peak	meYera	06/03/10 07:55
Perfluorooctane Sulfonate (PFOS)	6.80	Wrong peak	meYera	06/03/10 07:55
13C5 PFNA	6.91	Wrong peak	meYera	06/03/10 07:55
13C8 PFOS	6.93	Wrong peak	meYera	06/03/10 07:55
13C2 PFDA	7.17	Wrong peak	meYera	06/03/10 07:55
13C2 PFUnA	7.36	Wrong peak	meYera	06/03/10 07:55
13C2 PFDoA	7.55	Wrong peak	meYera	06/03/10 07:55

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.:

SDG No.:

Instrument ID: LC_LCMS5 Analysis Batch Number:

Lab Sample ID: Client Sample ID:

Date Analyzed: 06/02/10 16:45 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	4.22	Split Peak	meYera	06/03/10 07:59
13C4 PFBA	4.23	Split Peak	meYera	06/03/10 07:59
Perfluoropentanoic acid (PFPA)	5.31	Split Peak	meYera	06/03/10 07:59
Perfluorobutane Sulfonate (PFBS)	5.43	Split Peak	meYera	06/03/10 07:59
13C2 PFHxA	5.89	Split Peak	meYera	06/03/10 07:59
Perfluorohexanoic acid (PFHxA)	5.89	Split Peak	meYera	06/03/10 07:59
Perfluoroheptanoic acid (PFHpA)	6.31	Split Peak	meYera	06/03/10 07:59
18O2 PFHxS	6.32	Split Peak	meYera	06/03/10 07:59
Perfluorohexane Sulfonate (PFHxS)	6.33	Split Peak	meYera	06/03/10 07:59
13C8 PFOA	6.66	Split Peak	meYera	06/03/10 07:59
13C4 PFOA	6.68	Split Peak	meYera	06/03/10 07:59
Perfluorooctanoic acid (PFOA)	6.68	Split Peak	meYera	06/03/10 07:59
13C5 PFNA	6.95	Split Peak	meYera	06/03/10 07:59
13C8 PFOS	6.96	Split Peak	meYera	06/03/10 07:59
Perfluorodecanoic acid (PFDA)	7.17	Wrong peak	meYera	06/03/10 07:59
13C2 PFDA	7.18	Wrong peak	meYera	06/03/10 07:59
MeFOSA (Surr)	7.19	Wrong peak	meYera	06/03/10 07:59
13C2 PFUnA	7.40	Wrong peak	meYera	06/03/10 07:59
Perfluoroundecanoic acid (PFUnA)	7.41	Wrong peak	meYera	06/03/10 07:59
13C2 PFDoA	7.58	Wrong peak	meYera	06/03/10 07:59
Perfluorotridecanoic Acid (PFTriA)	7.71	Wrong peak	meYera	06/03/10 07:59
Perfluorotetradecanoic acid (PFTeA)	7.89	Wrong peak	meYera	06/03/10 07:59

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LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.:

SDG:

Instrument ID: LC LCMS5 Analysis Batch Number:

Lab Sample ID: Client Sample ID:

Date Analyzed: 06/07/10 13:46 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C8 PFOS	6.96	Split Peak	meysra	06/08/10 11:04

Lab Sample ID: Client Sample ID:

Date Analyzed: 06/07/10 15:28 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	4.28	Baseline	meysra	06/08/10 10:58
Perfluorohexanoic acid (PFHxA)	5.92	Baseline	meysra	06/08/10 10:58
Perfluorohexane Sulfonate (PFHxS)	6.34	Baseline	meysra	06/08/10 10:58
18O2 PFHxS	6.35	Baseline	meysra	06/08/10 10:58

SDG No. :

Lab Sample ID: [REDACTED] Client Sample ID: [REDACTED]

Date Analyzed: 06/07/10 16:20 Lab File ID: [REDACTED] GC Column: Eclipse+C18 ID:

Lab Sample ID: [REDACTED] Client Sample ID:

Date Analyzed: 06/07/10 16:32 Lab File ID: [REDACTED] GC Column: Eclipse+C18 ID: [REDACTED]

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	4.16	Baseline	meyera	06/08/10 10:54

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LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.:
 Sub No.:
 Instrument ID: LC LCMS5 Analysis Batch Number:
 Lab Sample ID: Client Sample ID:
 Date Analyzed: 06/04/10 09:48 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.18	Split Peak	meysra	06/04/10 10:15

LCMS MANUAL INTEGRATION SUMMARY

17918

Lab Name: TestAmerica Denver Job No.:
 SDG No.:
 Instrument ID: LC_LCMS5 Analysis Batch Number:
 Lab Sample ID: Client Sample ID:
 Date Analyzed: 06/07/10 08:45 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.19	Split Peak	meYera	06/07/10 09:55

Lab Sample ID: Client Sample ID:
 Date Analyzed: 06/07/10 08:51 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.18	Baseline	meYera	06/07/10 09:55

Lab Sample ID: Client Sample ID:
 Date Analyzed: 06/07/10 08:58 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.19	Split Peak	meYera	06/07/10 09:55

Lab Sample ID: Client Sample ID:
 Date Analyzed: 06/07/10 09:10 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.19	Split Peak	meYera	06/07/10 09:56

18/18

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.:
SIC No.:
Instrument ID: LC_LCMS5 Analysis Batch Number:
Lab Sample ID: Client Sample ID:
Date Analyzed: 06/07/10 09:23 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.20	Split Peak	meyera	06/07/10 09:56

Lab Sample ID: Client Sample ID:
Date Analyzed: 06/07/10 09:36 Lab File ID: GC Column: Eclipse+C18 ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.20	Split Peak	meyera	06/07/10 09:56

SAMPLE SUMMARY

Client: Dalton Utilities

Job Number: [REDACTED]

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
[REDACTED]		Water	05/19/2010 0927	05/25/2010 0900
		Water	05/19/2010 0939	05/25/2010 0900
		Water	05/19/2010 0955	05/25/2010 0900
		Water	05/19/2010 1005	05/25/2010 0900
		Water	05/19/2010 1015	05/25/2010 0900
		Water	05/19/2010 1037	05/25/2010 0900
		Water	05/19/2010 1051	05/25/2010 0900
		Water	05/19/2010 1122	05/25/2010 0900
		Water	05/19/2010 1135	05/25/2010 0900

EXECUTIVE SUMMARY - Detections

Client: Dalton Utilities

Job Number: [REDACTED]

Lab Sample ID	Client Sample ID			Reporting Limit	Units	Method
Analyte		Result / Qualifier				
Perfluorohexane Sulfonate (PFHxS)		0.0076	J	0.030	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.0076	J	0.020	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.013	J	0.020	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.040		0.030	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.020	J	0.029	ug/L	DV-LC-0012
Perfluorobutane Sulfonate (PFBS)		0.029		0.020	ug/L	DV-LC-0012
Perfluorobutanoic acid (PFBA)		0.037		0.020	ug/L	DV-LC-0012
Perfluorodecanoic acid (PFDA)		0.022		0.020	ug/L	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)		0.042		0.029	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.050		0.020	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.090		0.020	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.027	J	0.029	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)		0.064		0.029	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.024	J	0.029	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.0068	J	0.019	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.022		0.019	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.032		0.029	ug/L	DV-LC-0012
Perfluorobutane Sulfonate (PFBS)		0.011	J	0.020	ug/L	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)		0.031		0.029	ug/L	DV-LC-0012
Perfluorohexane Sulfonate (PFHxS)		0.021	J	0.029	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.024		0.020	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.075		0.020	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.033		0.029	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)		0.018	J	0.029	ug/L	DV-LC-0012

EXECUTIVE SUMMARY - Detections

Client: Dalton Utilities

Job Number: [REDACTED]

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
[REDACTED]					
Perfluorobutane Sulfonate (PFBS)		0.059	0.019	ug/L	DV-LC-0012
Perfluorobutanoic acid (PFBA)		0.022	0.019	ug/L	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)		0.075	0.028	ug/L	DV-LC-0012
Perfluorohexane Sulfonate (PFHxS)		0.097	0.028	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.077	0.019	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.16	0.019	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.18	0.028	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)		0.049	0.028	ug/L	DV-LC-0012
[REDACTED]					
Perfluorobutane Sulfonate (PFBS)		0.018 J	0.019	ug/L	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)		0.020 J	0.029	ug/L	DV-LC-0012
Perfluorohexane Sulfonate (PFHxS)		0.018 J	0.029	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.026	0.019	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.024	0.019	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)		0.016 J	0.029	ug/L	DV-LC-0012

METHOD SUMMARY

Client: Dalton Utilities

Job Number: [REDACTED]

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Perfluorinated Hydrocarbons	TAL DEN	TAL-DEN DV-LC-0012	
Solid-Phase Extraction (SPE)	TAL DEN		SW846 3535
FOSA in Water (LC/MS/MS)	TAL DEN	TAL-DEN PFC -FOSA	
Solid-Phase Extraction (SPE)	TAL DEN		SW846 3535

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-DEN = TestAmerica Laboratories, Denver, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Dalton Utilities

Job Number: [REDACTED]

Method	Analyst	Analyst ID
TAL-DEN DV-LC-0012	Meyer, Andrew GC	AGCM
TAL-DEN PFC -FOSA	Meyer, Andrew GC	AGCM

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 0927

Date Received: 05/25/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/02/2010 1437
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 250 mL
Final Weight/Volume: 5 mL
Injection Volume: 30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0082	0.020
Perfluorobutanoic acid (PFBA)	ND		0.0098	0.020
Perfluorodecanoic acid (PFDA)	ND		0.0078	0.020
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.030
Perfluoroheptanoic acid (PFHpA)	ND		0.013	0.030
Perfluorohexane Sulfonate (PFHxS)	0.0076	J	0.0070	0.030
Perfluorohexanoic acid (PFHxA)	0.0076	J	0.0029	0.020
Perfluorononanoic acid (PFNA)	ND		0.017	0.040
Perfluorooctanoic acid (PFOA)	0.013	J	0.0098	0.020
Perfluorooctane Sulfonate (PFOS)	0.040		0.013	0.030
Perfluoropentanoic acid (PFPA)	ND		0.011	0.030
Perfluorotetradecanoic acid (PFTeA)	ND		0.015	0.030
Perfluorotridecanoic Acid (PFTriA)	ND		0.018	0.040
Perfluoroundecanoic acid (PFUnA)	ND		0.0069	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFBA	66		36 - 130
13C2 PFHxA	103		55 - 135
13C5 PFNA	93		54 - 132
13C2 PFDA	58		53 - 130
13C2 PFUnA	52		37 - 130
13C2 PFDoA	49		26 - 130
18O2 PFHxS	90		61 - 130
13C8 PFOA	111		60 - 155
13C8 PFOS	111		45 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 0939

Date Received: 05/25/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/02/2010 1450
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 255 mL
Final Weight/Volume: 5 mL
Injection Volume: 30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0081	0.020
Perfluorobutanoic acid (PFBA)	ND		0.0096	0.020
Perfluorodecanoic acid (PFDA)	ND		0.0077	0.020
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.029
Perfluoroheptanoic acid (PFHpA)	ND		0.013	0.029
Perfluorohexane Sulfonate (PFHxS)	ND		0.0068	0.029
Perfluorohexanoic acid (PFHxA)	ND		0.0029	0.020
Perfluorononanoic acid (PFNA)	ND		0.017	0.039
Perfluorooctanoic acid (PFOA)	ND		0.0096	0.020
Perfluorooctane Sulfonate (PFOS)	ND		0.013	0.029
Perfluoropentanoic acid (PFPA)	ND		0.011	0.029
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.029
Perfluorotridecanoic Acid (PFTrIA)	ND		0.017	0.039
Perfluoroundecanoic acid (PFUnA)	ND		0.0068	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFBA	84		36 - 130
13C2 PFHxA	106		55 - 135
13C5 PFNA	100		54 - 132
13C2 PFDA	81		53 - 130
13C2 PFUnA	78		37 - 130
13C2 PFDoA	73		26 - 130
18O2 PFHxS	88		61 - 130
13C8 PFOA	110		60 - 155
13C8 PFOS	113		45 - 130

Analytical Data

Client: Dutton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 0955

Date Received: 05/25/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/02/2010 1502
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]

Prep Batch: [REDACTED]

Instrument ID: [REDACTED]

Lab File ID: [REDACTED]

Initial Weight/Volume: 256 mL

Final Weight/Volume: 5 mL

Injection Volume: 30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0080	0.020
Perfluorobutanoic acid (PFBA)	ND		0.0096	0.020
Perfluorodecanoic acid (PFDA)	ND		0.0076	0.020
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.029
Perfluoroheptanoic acid (PFHpA)	ND		0.013	0.029
Perfluorohexane Sulfonate (PFHxS)	ND		0.0068	0.029
Perfluorohexanoic acid (PFHxA)	ND		0.0028	0.020
Perfluorononanoic acid (PFNA)	ND		0.017	0.039
Perfluorooctanoic acid (PFOA)	ND		0.0096	0.020
Perfluorooctane Sulfonate (PFOS)	0.020	J	0.013	0.029
Perfluoropentanoic acid (PFPA)	ND		0.011	0.029
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.029
Perfluorotridecanoic Acid (PFTriA)	ND		0.017	0.039
Perfluoroundecanoic acid (PFUnA)	ND		0.0067	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFBA	74		36 - 130
13C2 PFHxA	106		55 - 135
13C5 PFNA	89		54 - 132
13C2 PFDA	62		53 - 130
13C2 PFUnA	60		37 - 130
13C2 PFDoA	59		26 - 130
18O2 PFHxS	88		61 - 130
13C8 PFOA	112		60 - 155
13C8 PFOS	108		45 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1005

Date Received: 05/25/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/02/2010 1515
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 256 mL
Final Weight/Volume: 5 mL
Injection Volume: 30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.029		0.0080	0.020
Perfluorobutanoic acid (PFBA)	0.037		0.0096	0.020
Perfluorodecanoic acid (PFDA)	0.022		0.0076	0.020
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.029
Perfluoroheptanoic acid (PFHpA)	0.042		0.013	0.029
Perfluorohexane Sulfonate (PFHxS)	ND		0.0068	0.029
Perfluorohexanoic acid (PFHxA)	0.050		0.0028	0.020
Perfluorononanoic acid (PFNA)	ND		0.017	0.039
Perfluorooctanoic acid (PFOA)	0.090		0.0096	0.020
Perfluorooctane Sulfonate (PFOS)	0.027	J	0.013	0.029
Perfluoropentanoic acid (PFPA)	0.064		0.011	0.029
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.029
Perfluorotridecanoic Acid (PFTriA)	ND		0.017	0.039
Perfluoroundecanoic acid (PFUnA)	ND		0.0067	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFBA	68		36 - 130
13C2 PFHxA	110		55 - 135
13C5 PFNA	91		54 - 132
13C2 PFDA	61		53 - 130
13C2 PFUnA	56		37 - 130
13C2 PFDoA	56		26 - 130
18O2 PFHxS	94		61 - 130
13C8 PFOA	105		60 - 155
13C8 PFOS	106		45 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1015

Date Received: 05/25/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/02/2010 1528
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]

Prep Batch: [REDACTED]

Instrument ID: [REDACTED]

Lab File ID: [REDACTED]

Initial Weight/Volume: 262 mL

Final Weight/Volume: 5 mL

Injection Volume: 30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0079	0.019
Perfluorobutanoic acid (PFBA)	ND		0.0094	0.019
Perfluorodecanoic acid (PFDA)	ND		0.0075	0.019
Perfluorododecanoic acid (PFDoA)	ND		0.014	0.029
Perfluoroheptanoic acid (PFHpA)	ND		0.013	0.029
Perfluorohexane Sulfonate (PFHxS)	ND		0.0067	0.029
Perfluorohexanoic acid (PFHxA)	ND		0.0028	0.019
Perfluorononanoic acid (PFNA)	ND		0.017	0.038
Perfluorooctanoic acid (PFOA)	ND		0.0093	0.019
Perfluorooctane Sulfonate (PFOS)	0.024	J	0.013	0.029
Perfluoropentanoic acid (PFPA)	ND		0.010	0.029
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.029
Perfluorotridecanoic Acid (PFTriA)	ND		0.017	0.038
Perfluoroundecanoic acid (PFUnA)	ND		0.0066	0.019

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFBA	65		36 - 130
13C2 PFHxA	104		55 - 135
13C5 PFNA	94		54 - 132
13C2 PFDA	58		53 - 130
13C2 PFUnA	49		37 - 130
13C2 PFDoA	46		26 - 130
18O2 PFHxS	89		61 - 130
13C8 PFOA	105		60 - 155
13C8 PFOS	108		45 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1037

Date Received: 05/25/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/02/2010 1554
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 262 mL
Final Weight/Volume: 5 mL
Injection Volume: 30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0079	0.019
Perfluorobutanoic acid (PFBA)	ND		0.0094	0.019
Perfluorodecanoic acid (PFDA)	ND		0.0075	0.019
Perfluorododecanoic acid (PFDoA)	ND		0.014	0.029
Perfluoroheptanoic acid (PFHpA)	ND		0.013	0.029
Perfluorohexane Sulfonate (PFHxS)	ND		0.0067	0.029
Perfluorohexanoic acid (PFHxA)	0.0068	J	0.0028	0.019
Perfluorononanoic acid (PFNA)	ND		0.017	0.038
Perfluorooctanoic acid (PFOA)	0.022		0.0093	0.019
Perfluorooctane Sulfonate (PFOS)	0.032		0.013	0.029
Perfluoropentanoic acid (PFPA)	ND		0.010	0.029
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.029
Perfluorotridecanoic Acid (PFTriA)	ND		0.017	0.038
Perfluoroundecanoic acid (PFUnA)	ND		0.0066	0.019

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFBA	69		36 - 130
13C2 PFHxA	108		55 - 135
13C5 PFNA	91		54 - 132
13C2 PFDA	55		53 - 130
13C2 PFUnA	47		37 - 130
13C2 PFDoA	44		26 - 130
18O2 PFHxS	91		61 - 130
13C8 PFOA	112		60 - 155
13C8 PFOS	118		45 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1051

Date Received: 05/25/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
 Preparation: 3535
 Dilution: 1.0
 Date Analyzed: 06/02/2010 1606
 Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
 Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
 Lab File ID: [REDACTED]
 Initial Weight/Volume: 255 mL
 Final Weight/Volume: 5 mL
 Injection Volume: 30 µL

Surrogate	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.011	J	0.0081	0.020
Perfluorobutanoic acid (PFBA)	ND		0.0096	0.020
Perfluorodecanoic acid (PFDA)	ND		0.0077	0.020
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.029
Perfluoroheptanoic acid (PFHpA)	0.031		0.013	0.029
Perfluorohexane Sulfonate (PFHxS)	0.021	J	0.0068	0.029
Perfluorohexanoic acid (PFHxA)	0.024		0.0029	0.020
Perfluorononanoic acid (PFNA)	ND		0.017	0.039
Perfluorooctanoic acid (PFOA)	0.075		0.0096	0.020
Perfluorooctane Sulfonate (PFOS)	0.033		0.013	0.029
Perfluoropentanoic acid (PFPA)	0.018	J	0.011	0.029
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.029
Perfluorotridecanoic Acid (PFTriA)	ND		0.017	0.039
Perfluoroundecanoic acid (PFUnA)	ND		0.0068	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFBA	66		36 - 130
13C2 PFHxA	103		55 - 135
13C5 PFNA	93		54 - 132
13C2 PFDA	72		53 - 130
13C2 PFUnA	63		37 - 130
13C2 PFDoA	59		26 - 130
18O2 PFHxS	86		61 - 130
13C8 PFOA	110		60 - 155
13C8 PFOS	113		45 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Date Sampled: 05/19/2010 1122

Client Matrix: Water

Date Received: 05/25/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/02/2010 1619
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 264 mL
Final Weight/Volume: 5 mL
Injection Volume: 30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.059		0.0078	0.019
Perfluorobutanoic acid (PFBA)	0.022		0.0093	0.019
Perfluorodecanoic acid (PFDA)	ND		0.0074	0.019
Perfluorododecanoic acid (PFDoA)	ND		0.014	0.028
Perfluoroheptanoic acid (PFHpA)	0.075		0.012	0.028
Perfluorohexane Sulfonate (PFHxS)	0.097		0.0066	0.028
Perfluorohexanoic acid (PFHxA)	0.077		0.0028	0.019
Perfluorononanoic acid (PFNA)	ND		0.017	0.038
Perfluorooctanoic acid (PFOA)	0.16		0.0093	0.019
Perfluorooctane Sulfonate (PFOS)	0.18		0.013	0.028
Perfluoropentanoic acid (PFPA)	0.049		0.010	0.028
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.028
Perfluorotridecanoic Acid (PFTriA)	ND		0.017	0.038
Perfluoroundecanoic acid (PFUnA)	ND		0.0065	0.019

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFBA	41		36 - 130
13C2 PFHxA	69		55 - 135
13C5 PFNA	58		54 - 132
13C2 PFDA	39	X	53 - 130
13C2 PFUnA	31	X	37 - 130
13C2 PFDoA	29		26 - 130
18O2 PFHxS	59	X	61 - 130
13C8 PFOA	157	X	60 - 155
13C8 PFOS	159	X	45 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1122

Date Received: 05/25/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
 Preparation: 3535
 Dilution: 1.0
 Date Analyzed: 06/07/2010 1620
 Date Prepared: 06/04/2010 1025

Analysis Batch: [REDACTED]
 Prep Batch: [REDACTED]

Run Type: RA

Instrument ID: [REDACTED]
 Lab File ID: [REDACTED]
 Initial Weight/Volume: 253.0 mL
 Final Weight/Volume: 5 mL
 Injection Volume: 30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.043	H	0.0081	0.020
Perfluorobutanoic acid (PFBA)	0.0098	J H	0.0097	0.020
Perfluorodecanoic acid (PFDA)	ND	H	0.0077	0.020
Perfluorododecanoic acid (PFDaA)	ND	H	0.015	0.030
Perfluoroheptanoic acid (PFHpA)	0.053	H	0.013	0.030
Perfluorohexane Sulfonate (PFHxS)	0.070	H	0.0069	0.030
Perfluorohexanoic acid (PFHxA)	0.052	H	0.0029	0.020
Perfluorononanoic acid (PFNA)	ND	H	0.017	0.040
Perfluorooctanoic acid (PFOA)	0.12	H	0.0097	0.020
Perfluorooctane Sulfonate (PFOS)	0.13	H	0.013	0.030
Perfluoropentanoic acid (PFPA)	0.033	H	0.011	0.030
Perfluorotetradecanoic acid (PFTeA)	ND	H	0.014	0.030
Perfluorotridecanoic Acid (PFTriA)	ND	H	0.018	0.040
Perfluoroundecanoic acid (PFUnA)	ND	H	0.0068	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFBA	67		36 - 130
13C2 PFHxA	83		55 - 135
13C5 PFNA	66		54 - 132
13C2 PFDA	42	X	53 - 130
13C2 PFUnA	36	X	37 - 130
13C2 PFDaA	32		26 - 130
18O2 PFHxS	72		61 - 130
13C8 PFOA	111		60 - 155
13C8 PFOS	113		45 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1135

Date Received: 05/25/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/02/2010 1632
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 261 mL
Final Weight/Volume: 5 mL
Injection Volume: 30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.018	J	0.0079	0.019
Perfluorobutanoic acid (PFBA)	ND		0.0094	0.019
Perfluorodecanoic acid (PFDA)	ND		0.0075	0.019
Perfluorododecanoic acid (PFDoA)	ND		0.014	0.029
Perfluoroheptanoic acid (PFHpA)	0.020	J	0.013	0.029
Perfluorohexane Sulfonate (PFHxS)	0.018	J	0.0067	0.029
Perfluorohexanoic acid (PFHxA)	0.026		0.0028	0.019
Perfluorononanoic acid (PFNA)	ND		0.017	0.038
Perfluorooctanoic acid (PFOA)	0.024		0.0094	0.019
Perfluorooctane Sulfonate (PFOS)	ND		0.013	0.029
Perfluoropentanoic acid (PFPA)	0.016	J	0.010	0.029
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.029
Perfluorotridecanoic Acid (PFTriA)	ND		0.017	0.038
Perfluoroundecanoic acid (PFUnA)	ND		0.0066	0.019

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFBA	67		36 - 130
13C2 PFHxA	104		55 - 135
13C5 PFNA	96		54 - 132
13C2 PFDA	55		53 - 130
13C2 PFUnA	42		37 - 130
13C2 PFDoA	38		26 - 130
18O2 PFHxS	90		61 - 130
13C8 PFOA	106		60 - 155
13C8 PFOS	108		45 - 130

Analytical Data

Client: Cotton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 0927

Date Received: 05/25/2010 0900

PFC -FOSA FOSA In Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/07/2010 0838
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 253 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Sample	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND		0.0056	0.049
Surrogate	%Rec	Qualifier	Acceptance Limits	
13C8 FOSA	83		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 0939

Date Received: 05/25/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/07/2010 0845
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 251 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND		0.0057	0.050

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 FOSA	77		37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 0955

Date Received: 05/25/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/07/2010 0851
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 250 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND		0.0057	0.050
Surrogate	%Rec	Qualifier	Acceptance Limits	
13C8 FOSA	79		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Date Sampled: 05/19/2010 1005

Client Matrix: Water

Date Received: 05/25/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/07/2010 0858
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 258 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND		0.0055	0.048

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 FOSA	63		37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1015

Date Received: 05/25/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/07/2010 0910
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 255 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND	0.0056	0.049
Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 FOSA	78		37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1037

Date Received: 05/25/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/07/2010 0917
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 251 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND		0.0057	0.050

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 FOSA	87		37 - 130

Analytical Data

Client: Denver Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1051

Date Received: 05/25/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/07/2010 0923
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 254 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND		0.0056	0.049

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 FOSA	82		37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1122

Date Received: 05/25/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/07/2010 0930
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 253 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND		0.0056	0.049

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 FOSA	83		37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: [REDACTED]

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 05/19/2010 1135

Date Received: 05/25/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 06/07/2010 0936
Date Prepared: 05/26/2010 1030

Analysis Batch: [REDACTED]

Prep Batch: [REDACTED]

Instrument ID: [REDACTED]

Lab File ID: [REDACTED]

Initial Weight/Volume: 256 mL

Final Weight/Volume: 5 mL

Injection Volume: 20 uL

As of	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND		0.0056	0.049

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 FOSA	82		37 - 130

ANALYTICAL REPORT

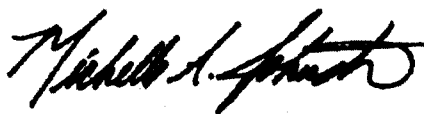
Job Number: 280-764-1

Job Description: PFC Analysis

For:

Dalton Utilities
1200 V.D. Parrott Jr. Parkway
Dalton, GA 30721

Attention: Ms. Dena Haverland



Approved for release:
Michelle Johnston
Project Manager I
3/11/2010 9:19 AM

Michelle Johnston
Project Manager I
michelle.johnston@testamericainc.com
03/11/2010

The test results in this report relate only to the samples in this report and meet all requirements of NELAP, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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CASE NARRATIVE
Client: Dalton Utilities
Project: PFC Analysis
Report Number: 280-764-1

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Receipt

The following report contains the analytical results for nine samples received at TestAmerica Denver on February 20, 2010, according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 3.6°C. No anomalies were encountered during sample receipt.

PFC

Samples

[REDACTED] The samples were prepared on 02/23/2010 and 03/02/2010 and analyzed on 02/27/2010, 03/08/2010 and 03/09/2010.

Due to low internal standard recoveries, samples [REDACTED]

[REDACTED] were re-extracted out of the laboratory prescribed hold time and reanalyzed in QC batch 280-6541. Both batches are included in this report. Please note the sample results should be considered estimated.

The internal standard recoveries for 13C2 PFDA, 13C2 PFUnA, 13C2 PFDoA, and/or 13C4 PFOS associated with QC batch 280-5477 were recovered below the control limits in samples [REDACTED]

[REDACTED] Upon re-extraction and reanalysis in QC batch 280-6541, the internal standard recoveries were 100% in control. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time.

The internal standard recovery for 13C2 PFDA associated with QC batch 280-5477 was recovered below the control limits in sample [REDACTED]. Upon re-extraction and reanalysis in QC batch 280-6541; the internal standard recovery outlier was still present, demonstrating that this anomaly is most likely due to matrix interference. The original analysis data have been reported.

The method required MS/MSD could not be performed for QC batches 280-5477 and 280-6541, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD data.

No other difficulties were encountered during the PFC analyses.

All other quality control parameters were within the acceptance limits.

FOSA

Samples 743 Artis Charles Rd (280-764-1), [REDACTED]

[REDACTED] were analyzed for FOSA in accordance with SOP DV-LC-0012. The samples were prepared on 02/23/2010 and 03/02/2010 and analyzed on 02/28/2010 and 03/08/2010.

Due to low internal standard recoveries, samples [REDACTED]

[REDACTED] were re-extracted out of the laboratory prescribed hold time and reanalyzed in QC batch 280-6541. Both batches are included in this report. Please note the sample results should be considered estimated.

The internal standard recoveries for MeFOSA (Surr) associated with QC batch 280-5478 were recovered below the control limits in samples [REDACTED]. Upon re-extraction and reanalysis in QC batch 280-6427, the internal standard recoveries were 100% in control. Both the original and reanalysis data have been provided, as re-extraction was unavoidably performed outside the laboratory recommended sample holding time.

The internal standard recovery for MeFOSA (Surr) associated with QC batch 280-5478 was recovered below the control limits in sample [REDACTED]. Upon re-extraction and reanalysis in QC batch 280-6427; the internal standard recovery outlier was still present, demonstrating that this anomaly is most likely due to matrix interference. The original analysis data have been reported.

The LCS/LCSD associated with QC batch 280-5478 exhibited percent recoveries above the QC limits for Perfluorooctane sulfonamide (FOSA). This is an indicator that data may be biased high. As no detectable concentrations are present in the associated samples, corrective action is deemed unnecessary.

The LCS/LCSD associated with QC batch 280-6427 exhibited relative percent difference (RPD) data outside the QC control limits for Perfluorooctane sulfonamide (FOSA). The individual LCS and LCSD recoveries were acceptable; however the LCS was recovered at the high end of the recovery limit range and the LCSD was recovered at the low end of the recovery limit range, causing the RPD to be out of control. The acceptable LCS/LCSD analyte recoveries indicate that the laboratory performed the method within acceptable guidelines; therefore, corrective action is deemed unnecessary.

The method required MS/MSD could not be performed for QC batches 280-5478 and 280-6427, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD data.

No other difficulties were encountered during the FOSA analyses.

All other quality control parameters were within the acceptance limits.

LCMS MANUAL INTEGRATION SUMMARY

Pg 1410

Lab Name: TestAmerica Denver

Job No.: 280-764-1

SDG No.:

Instrument ID: LC LCMS3

Analysis Batch Number: 5477

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 02/27/10 17:02

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME

RETENTION TIME

REASON

MANUAL INTEGRATION

ANALYST

DATE

Perfluorohexane Sulfonate (PFHXS)

5.65 Assign Peak

Williamst 03/01/10 17:55

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 02/27/10 18:02

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME

RETENTION TIME

REASON

MANUAL INTEGRATION

ANALYST

DATE

Perfluorohexane Sulfonate (PFHXS)

5.58 Baseline

Williamst 03/01/10 17:38

Perfluorooctanoic acid (PFOA)

6.37 Baseline

Williamst 03/01/10 17:41

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 02/27/10 18:17

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME

RETENTION TIME

REASON

MANUAL INTEGRATION

ANALYST

DATE

Perfluorohexanoic acid (PFHPA)

5.51 Baseline

Williamst 03/01/10 17:33

Perfluorohexane Sulfonate (PFHXS)

5.58 Baseline

Williamst 03/01/10 17:38

Perfluorooctanoic acid (PFOA)

6.37 Baseline

Williamst 03/01/10 17:40

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 02/27/10 18:32

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME

RETENTION TIME

REASON

MANUAL INTEGRATION

ANALYST

DATE

Perfluorobutanoic acid (PFBA)

1.99 Baseline

Williamst 03/01/10 17:21

S. Carpenter 3-10-10

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-764-1
 SDG No.: _____
 Instrument ID: LC LCMS3 Analysis Batch Number: 5477
 Lab Sample ID: Client Sample ID:
 Date Analyzed: 02/27/10 18:47 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluoroheptanoic acid (PFHpA)	5.53	Baseline	williamst	03/01/10 17:33
Perfluorohexane Sulfonate (PFHxS)	5.58	Baseline	williamst	03/01/10 17:38
Perfluorooctanoic acid (PFOA)	6.40	Baseline	williamst	03/01/10 17:40

Lab Sample ID: Client Sample ID:
 Date Analyzed: 02/27/10 19:02 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorohexane Sulfonate (PFHxS)	5.58	Baseline	williamst	03/01/10 17:37

Lab Sample ID: Client Sample ID:
 Date Analyzed: 02/27/10 19:17 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutane Sulfonate (PFBS)	3.39	Baseline	williamst	03/01/10 17:23
Perfluorohexane Sulfonate (PFHxS)	5.57	Baseline	williamst	03/01/10 17:37

Lab Sample ID: Client Sample ID:
 Date Analyzed: 02/27/10 19:32 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorohexanoic acid (PFHxA)	4.41	Baseline	williamst	03/01/10 17:32
Perfluoroheptanoic acid (PFHpA)	5.48	Baseline	williamst	03/01/10 17:33
Perfluorohexane Sulfonate (PFHxS)	5.58	Baseline	williamst	03/01/10 17:37

LCMS MANUAL INTEGRATION SUMMARY

3

Lab Name: TestAmerica Denver Job No.: 280-764-1
 SDG No.:
 Instrument ID: LC LCMS3 Analysis Batch Number: 5477
 Lab Sample ID: Client Sample ID:
 Date Analyzed: 02/27/10 19:47 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluoroheptanoic acid (PFHpA)	5.48	Baseline	williamst	03/01/10 17:32
Perfluorohexane Sulfonate (PFHxS)	5.55	Baseline	williamst	03/01/10 17:36
Perfluorooctanoic acid (PFOA)	6.37	Baseline	williamst	03/01/10 17:40

Lab Sample ID: Client Sample ID:
 Date Analyzed: 02/27/10 20:02 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutane Sulfonate (PFBS)	3.36	Baseline	williamst	03/01/10 17:23
Perfluorohexane Sulfonate (PFHxS)	5.55	Baseline	williamst	03/01/10 17:37
Perfluorooctanoic acid (PFOA)	6.35	Baseline	williamst	03/01/10 17:40

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-764-1

SDG No.:

Instrument ID: LC_LCMS3 Analysis Batch Number: 6541

Lab Sample ID: Client Sample ID:

Date Analyzed: 03/08/10 18:41 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.12	Baseline	williamst	03/09/10 15:30
13C4 PFBA (IS)	2.12	Baseline	williamst	03/09/10 15:30
Perfluoropentanoic acid (PFPA)	3.44	Baseline	williamst	03/09/10 15:49
Perfluorobutane Sulfonate (PFBS)	3.63	Baseline	williamst	03/09/10 15:49
Perfluorohexanoic acid (PFHxA)	4.71	Baseline	williamst	03/09/10 16:02
Perfluorodecanoic acid (PFDA)	8.04	Baseline	williamst	03/10/10 07:57

Lab Sample ID: Client Sample ID:
Date Analyzed: 03/08/10 18:56 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.14	Baseline	williamst	03/09/10 15:30
13C4 PFBA (IS)	2.14	Baseline	williamst	03/09/10 15:29
Perfluorobutane Sulfonate (PFBS)	3.65	Baseline	williamst	03/09/10 15:50

Lab Sample ID: Client Sample ID:
Date Analyzed: 03/08/10 19:11 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.15	Baseline	williamst	03/09/10 15:30
13C4 PFBA (IS)	2.15	Baseline	williamst	03/09/10 15:29
Perfluorobutane Sulfonate (PFBS)	3.57	Baseline	williamst	03/09/10 15:50

LCMS MANUAL INTEGRATION SUMMARY

5

Lab Name: TestAmerica Denver

Job No.: 280-764-1

SDG No.:

Instrument ID:

Analysis Batch Number: 6541

Lab Sample ID:

Client Sample ID:

Date Analyzed: 03/08/10 19:26

Lab File ID:

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.15	Baseline	williamst	03/09/10 15:30
13C4 PFBA (IS)	2.15	Baseline	williamst	03/09/10 15:29
Perfluoropentanoic acid (PFPA)	3.44	Baseline	williamst	03/09/10 15:49
Perfluorobutane Sulfonate (PFBS)	3.67	Baseline	williamst	03/09/10 15:50

Lab Sample ID:

Client Sample ID:

Date Analyzed: 03/08/10 19:41

Lab File ID:

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.15	Baseline	williamst	03/09/10 15:30
13C4 PFBA (IS)	2.15	Baseline	williamst	03/09/10 15:29
Perfluorobutanoic acid (PFBA)	2.15	Baseline	williamst	03/09/10 15:17
Perfluoropentanoic acid (PFPA)	3.42	Baseline	williamst	03/09/10 15:49
Perfluorobutane Sulfonate (PFBS)	3.65	Baseline	williamst	03/09/10 15:50
Perfluorododecanoic acid (PFDoA)	9.02	Baseline	williamst	03/10/10 08:01

Lab Sample ID:

Client Sample ID:

Date Analyzed: 03/08/10 19:56

Lab File ID:

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.15	Baseline	williamst	03/09/10 15:30
13C4 PFBA (IS)	2.15	Baseline	williamst	03/09/10 15:29
Perfluorobutanoic acid (PFBA)	2.17	Baseline	williamst	03/09/10 15:17
Perfluoropentanoic acid (PFPA)	3.44	Baseline	williamst	03/09/10 15:49
Perfluorobutane Sulfonate (PFBS)	3.65	Baseline	williamst	03/09/10 15:50

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-764-1

SDG No.:

Instrument ID: [REDACTED]

Analysis Batch Number: 6541

Lab Sample ID: [REDACTED]

Client Sample ID:

Date Analyzed: 03/08/10 20:11

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.15	Baseline	williamst	03/09/10 15:30
13C4 PFBA (IS)	2.15	Baseline	williamst	03/09/10 15:29
Perfluorobutanoic acid (PFBA)	2.17	Baseline	williamst	03/09/10 15:17
Perfluoropentanoic acid (PFPA)	3.44	Baseline	williamst	03/09/10 15:49
Perfluorobutane Sulfonate (PFBS)	3.67	Baseline	williamst	03/09/10 15:51
13C2 PFHxA	4.74	Baseline	williamst	03/09/10 15:59
13C2 PFHxA (IS)	4.74	Baseline	williamst	03/09/10 15:58
Perfluorohexanoic acid (PFHxA)	4.74	Baseline	williamst	03/09/10 16:02

Lab Sample ID: [REDACTED]

Client Sample ID:

Date Analyzed: 03/08/10 20:41

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.15	Baseline	williamst	03/09/10 15:31
Perfluorobutanoic acid (PFBA)	2.15	Baseline	williamst	03/09/10 15:17
Perfluoropentanoic acid (PFPA)	3.44	Baseline	williamst	03/09/10 15:49
Perfluorobutane Sulfonate (PFBS)	3.67	Baseline	williamst	03/09/10 15:51
Perfluorohexanoic acid (PFHxA)	4.74	Baseline	williamst	03/09/10 16:02

Lab Sample ID: [REDACTED]

Client Sample ID:

Date Analyzed: 03/08/10 20:56

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.10	Baseline	williamst	03/09/10 15:31
13C2 PFHxA	4.67	Baseline	williamst	03/09/10 15:59
Perfluorohexane Sulfonate (PFHxS)	5.86	Baseline	williamst	03/09/10 16:08

LCMS MANUAL INTEGRATION SUMMARY

7

Lab Name: TestAmerica Denver

Job No.: 280-764-1

SDG No.:

Instrument ID: [REDACTED]

Analysis Batch Number: 6541

Lab Sample ID: [REDACTED]

Client Sample ID:

Date Analyzed: 03/08/10 21:11

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.10	Baseline	williamst	03/09/10 15:31
Perfluorobutanoic acid (PFBA)	2.10	Baseline	williamst	03/09/10 15:18
Perfluoropentanoic acid (PFPA)	3.35	Baseline	williamst	03/09/10 15:48
Perfluorobutane Sulfonate (PFBS)	3.57	Baseline	williamst	03/09/10 15:51

Lab Sample ID: [REDACTED]

Client Sample ID:

Date Analyzed: 03/08/10 21:26

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.08	Baseline	williamst	03/09/10 15:31
Perfluorobutanoic acid (PFBA)	2.10	Baseline	williamst	03/09/10 15:18
Perfluoropentanoic acid (PFPA)	3.37	Baseline	williamst	03/09/10 15:48

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 03/08/10 21:41

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.10	Baseline	williamst	03/09/10 15:31
Perfluoropentanoic acid (PFPA)	3.27	Baseline	williamst	03/09/10 15:48
Perfluorobutane Sulfonate (PFBS)	3.61	Baseline	williamst	03/09/10 15:52
Perfluorohexanoic acid (PFHxA)	4.68	Baseline	williamst	03/09/10 16:01
Perfluoroheptanoic acid (PFHpA)	5.76	Baseline	williamst	03/09/10 16:03
Perfluorohexane Sulfonate (PFHxS)	5.83	Baseline	williamst	03/09/10 16:08

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-764-1
 SDG No.:
 Instrument ID: Analysis Batch Number: 6541
 Lab Sample ID: Client Sample ID:
 Date Analyzed: 03/08/10 21:56 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.08	Baseline	williamst	03/09/10 15:31
Perfluoropentanoic acid (PFPA)	3.35	Baseline	williamst	03/09/10 15:48
Perfluorobutane Sulfonate (PFBS)	3.59	Baseline	williamst	03/09/10 15:52
Perfluoroheptanoic acid (PFHpA)	5.74	Baseline	williamst	03/09/10 16:03
Perfluorohexane Sulfonate (PFHxS)	5.81	Baseline	williamst	03/09/10 16:08
Perfluorooctanoic acid (PFOA)	6.64	Baseline	williamst	03/09/10 16:15

Lab Sample ID: Client Sample ID:
 Date Analyzed: 03/08/10 22:11 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.08	Baseline	williamst	03/09/10 15:32
Perfluoropentanoic acid (PFPA)	3.27	Baseline	williamst	03/09/10 15:48
Perfluorohexanoic acid (PFHxA)	4.67	Baseline	williamst	03/09/10 16:01
Perfluoroheptanoic acid (PFHpA)	5.76	Baseline	williamst	03/09/10 16:03
Perfluorohexane Sulfonate (PFHxS)	5.81	Baseline	williamst	03/09/10 16:08
Perfluorooctanoic acid (PFOA)	6.63	Baseline	williamst	03/09/10 16:14

Lab Sample ID: Client Sample ID:
 Date Analyzed: 03/08/10 22:41 Lab File ID: GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	1.97	Baseline	williamst	03/09/10 15:18
13C4 PFBA	2.08	Baseline	williamst	03/09/10 15:32
Perfluorobutane Sulfonate (PFBS)	3.57	Baseline	williamst	03/09/10 15:53
Perfluorohexane Sulfonate (PFHxS)	5.80	Baseline	williamst	03/09/10 16:09

LCMS MANUAL INTEGRATION SUMMARY

9

Lab Name: TestAmerica Denver

Job No.: 280-764-1

SDG No.:

Instrument ID: [REDACTED]

Analysis Batch Number: 6541

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 03/08/10 22:56

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	2.04	Baseline	williamst	03/09/10 15:18
13C4 PFBA	2.10	Baseline	williamst	03/09/10 15:32
Perfluoropentanoic acid (PFPA)	3.24	Baseline	williamst	03/09/10 15:48
Perfluorobutane Sulfonate (PFBS)	3.55	Baseline	williamst	03/09/10 15:53
Perfluorohexanoic acid (PFHxA)	4.63	Baseline	williamst	03/09/10 16:01
Perfluorononanoic acid (PFNA)	7.36	Baseline	williamst	03/09/10 16:20

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 03/08/10 23:11

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	1.87	Baseline	williamst	03/09/10 15:19
13C4 PFBA	2.10	Baseline	williamst	03/09/10 15:32
Perfluoropentanoic acid (PFPA)	3.33	Baseline	williamst	03/09/10 15:48
Perfluorohexanoic acid (PFHxA)	4.66	Baseline	williamst	03/09/10 16:00
Perfluoroheptanoic acid (PFHpA)	5.72	Baseline	williamst	03/09/10 16:03
Perfluorohexane Sulfonate (PFHxS)	5.80	Baseline	williamst	03/09/10 16:09
Perfluorononanoic acid (PFNA)	7.33	Baseline	williamst	03/09/10 16:20

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 03/08/10 23:26

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.14	Baseline	williamst	03/09/10 15:32
Perfluorobutanoic acid (PFBA)	2.14	Baseline	williamst	03/09/10 15:19
Perfluoropentanoic acid (PFPA)	3.39	Baseline	williamst	03/09/10 15:48
Perfluorobutane Sulfonate (PFBS)	3.61	Baseline	williamst	03/09/10 15:53

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-764-1

SDG No.:

Instrument ID: [REDACTED]

Analysis Batch Number: 6541

Lab Sample ID: [REDACTED]

Client Sample ID:

Date Analyzed: 03/09/10 10:17

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.10	Baseline	williamst	03/09/10 15:34
Perfluorobutanoic acid (PFBA)	2.10	Baseline	williamst	03/09/10 15:22
Perfluoropentanoic acid (PFPA)	3.37	Baseline	williamst	03/09/10 15:44
Perfluorobutane Sulfonate (PFBS)	3.57	Baseline	williamst	03/09/10 15:55

Lab Sample ID: [REDACTED]

Client Sample ID: [REDACTED]

Date Analyzed: 03/09/10 10:32

Lab File ID: [REDACTED]

GC Column: IonPac

ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	1.86	Baseline	williamst	03/09/10 15:23
13C4 PFBA	2.06	Baseline	williamst	03/09/10 15:34
Perfluorobutane Sulfonate (PFBS)	3.50	Baseline	williamst	03/09/10 15:55
Perfluorohexane Sulfonate (PFHxS)	5.76	Baseline	williamst	03/09/10 16:11
Perfluorononanoic acid (PFNA)	7.31	Baseline	williamst	03/09/10 16:21

Lab Sample ID: [REDACTED]

Client Sample ID:

Date Analyzed: 03/09/10 12:32

Lab File ID: [REDACTED]

GC Column: IonPac

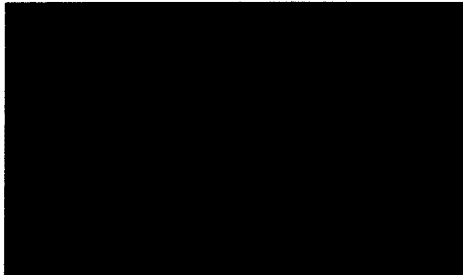
ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFBA	2.08	Baseline	williamst	03/09/10 15:36
Perfluorobutanoic acid (PFBA)	2.08	Baseline	williamst	03/09/10 15:24
Perfluoropentanoic acid (PFPA)	3.31	Baseline	williamst	03/09/10 15:37
Perfluorobutane Sulfonate (PFBS)	3.54	Baseline	williamst	03/09/10 15:56

SAMPLE SUMMARY

Client: Dalton Utilities

Job Number: 280-764-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
		Water	02/16/2010 1124	02/20/2010 0900
		Water	02/16/2010 1132	02/20/2010 0900
		Water	02/16/2010 1155	02/20/2010 0900
		Water	02/16/2010 1205	02/20/2010 0900
		Water	02/17/2010 1433	02/20/2010 0900
		Water	02/17/2010 1444	02/20/2010 0900
		Water	02/17/2010 1503	02/20/2010 0900
		Water	02/17/2010 1514	02/20/2010 0900
		Water	02/19/2010 0828	02/20/2010 0900

EXECUTIVE SUMMARY - Detections

Client: Dalton Utilities

Job Number: 280-764-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
[REDACTED]					
Perfluorooctanoic acid (PFOA)		0.011 J	0.019	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.013 J	0.029	ug/L	DV-LC-0012
[REDACTED]					
Perfluorobutane Sulfonate (PFBS)		0.044	0.021	ug/L	DV-LC-0012
Perfluorobutanoic acid (PFBA)		0.015 J	0.021	ug/L	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)		0.054	0.031	ug/L	DV-LC-0012
Perfluorohexane Sulfonate (PFHxS)		0.065	0.031	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.054	0.021	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.10	0.021	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.032	0.031	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)		0.037	0.031	ug/L	DV-LC-0012
[REDACTED]					
Perfluorobutane Sulfonate (PFBS)		0.021	0.020	ug/L	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)		0.019 J	0.030	ug/L	DV-LC-0012
Perfluorohexane Sulfonate (PFHxS)		0.017 J	0.030	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.024	0.020	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.026	0.020	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)		0.015 J	0.030	ug/L	DV-LC-0012
[REDACTED]					
Perfluorobutane Sulfonate (PFBS)		0.046	0.021	ug/L	DV-LC-0012
Perfluorobutanoic acid (PFBA)		0.039	0.021	ug/L	DV-LC-0012
Perfluorodecanoic acid (PFDA)		0.048	0.021	ug/L	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)		0.059	0.032	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.073	0.021	ug/L	DV-LC-0012
Perfluorononanoic acid (PFNA)		0.025 J	0.043	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.13	0.021	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.020 J	0.032	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)		0.093	0.032	ug/L	DV-LC-0012
[REDACTED]					
Perfluorohexanoic acid (PFHxA)		0.0067 J	0.019	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.021	0.019	ug/L	DV-LC-0012

EXECUTIVE SUMMARY - Detections

Client: Dalton Utilities

Job Number: 280-764-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
		0.011	J	0.021	ug/L	DV-LC-0012
Perfluorobutane Sulfonate (PFBS)		0.024	J	0.031	ug/L	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)		0.016	J	0.031	ug/L	DV-LC-0012
Perfluorohexane Sulfonate (PFHxS)		0.023		0.021	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.065		0.021	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.017	J	0.031	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)						

METHOD SUMMARY

Client: Dalton Utilities

Job Number: 280-764-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Perfluorinated Hydrocarbons	TAL DEN	TAL-DEN DV-LC-0012	
Solid-Phase Extraction (SPE)	TAL DEN		SW846 3535
FOSA in Water (LC/MS/MS)	TAL DEN	TAL-DEN PFC -FOSA	
Solid-Phase Extraction (SPE)	TAL DEN		SW846 3535

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-DEN = TestAmerica Laboratories, Denver, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Dalton Utilities

Job Number: 280-764-1

Method	Analyst	Analyst ID
TAL-DEN DV-LC-0012	Williams, Teresa L	TLW
TAL-DEN PFC-FOSA	Williams, Teresa L	TLW

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1124

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/27/2010 1747
Date Prepared: 02/23/2010 0839

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 240 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0086	0.021
Perfluorobutanoic acid (PFBA)	ND		0.010	0.021
Perfluorodecanoic acid (PFDA)	ND		0.0081	0.021
Perfluorododecanoic acid (PFDoA)	ND		0.016	0.031
Perfluoroheptanoic acid (PFHpA)	ND		0.014	0.031
Perfluorohexane Sulfonate (PFHxS)	ND		0.0073	0.031
Perfluorohexanoic acid (PFHxA)	ND		0.0030	0.021
Perfluorononanoic acid (PFNA)	ND		0.018	0.042
Perfluorooctanoic acid (PFOA)	ND		0.010	0.021
Perfluorooctane Sulfonate (PFOS)	ND		0.014	0.031
Perfluoropentanoic acid (PFPA)	ND		0.011	0.031
Perfluorotetradecanoic acid (PFTeA)	ND		0.015	0.031
Perfluorotridecanoic Acid (PFTriA)	ND		0.018	0.042
Perfluoroundecanoic acid (PFUnA)	ND		0.0072	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	96		60 - 155
13C4 PFOS	62		45 - 130
13C4 PFBA	80		36 - 130
13C2 PFHxA	86		55 - 135
13C5 PFNA	75		54 - 132
13C2 PFDA	56		53 - 130
13C2 PFUnA	45		37 - 130
13C2 PFDoA	42		26 - 130
18O2 PFHxS	85		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1132

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/27/2010 1802
Date Prepared: 02/23/2010 0839

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 263 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0078	0.019
Perfluorobutanoic acid (PFBA)	ND		0.0093	0.019
Perfluorodecanoic acid (PFDA)	ND		0.0074	0.019
Perfluorododecanoic acid (PFDoA)	ND		0.014	0.029
Perfluoroheptanoic acid (PFHpA)	ND		0.012	0.029
Perfluorohexane Sulfonate (PFHxS)	ND		0.0066	0.029
Perfluorohexanoic acid (PFHxA)	ND		0.0028	0.019
Perfluorononanoic acid (PFNA)	ND		0.017	0.038
Perfluorooctanoic acid (PFOA)	0.011	J	0.0093	0.019
Perfluorooctane Sulfonate (PFOS)	0.013	J	0.013	0.029
Perfluoropentanoic acid (PFPA)	ND		0.010	0.029
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.029
Perfluorotridecanoic Acid (PFTriA)	ND		0.017	0.038
Perfluoroundecanoic acid (PFUnA)	ND		0.0065	0.019

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	78		60 - 155
13C4 PFOS	46		45 - 130
13C4 PFBA	77		36 - 130
13C2 PFHxA	81		55 - 135
13C5 PFNA	60		54 - 132
13C2 PFDA	41	X	53 - 130
13C2 PFUnA	37		37 - 130
13C2 PFDoA	39		26 - 130
18O2 PFHxS	76		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1132

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 03/08/2010 2141
Date Prepared: 03/02/2010 0842

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 237 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND	H	0.0087	0.021
Perfluorobutanoic acid (PFBA)	ND	H	0.010	0.021
Perfluorodecanoic acid (PFDA)	ND	H	0.0082	0.021
Perfluorododecanoic acid (PFDoA)	ND	H	0.016	0.032
Perfluoroheptanoic acid (PFHpA)	ND	H	0.014	0.032
Perfluorohexane Sulfonate (PFHxS)	ND	H	0.0074	0.032
Perfluorohexanoic acid (PFHxA)	0.0042	J H	0.0031	0.021
Perfluorononanoic acid (PFNA)	ND	H	0.018	0.042
Perfluorooctanoic acid (PFOA)	ND	H	0.010	0.021
Perfluorooctane Sulfonate (PFOS)	ND	H	0.014	0.032
Perfluoropentanoic acid (PFPA)	ND	H	0.012	0.032
Perfluorotetradecanoic acid (PFTeA)	ND	H	0.015	0.032
Perfluorotridecanoic Acid (PFTriA)	ND	H	0.019	0.042
Perfluoroundecanoic acid (PFUnA)	ND	H	0.0073	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	110		60 - 155
13C4 PFOS	69		45 - 130
13C4 PFBA	112		36 - 130
13C2 PFHxA	112		55 - 135
13C5 PFNA	88		54 - 132
13C2 PFDA	59		53 - 130
13C2 PFUnA	56		37 - 130
13C2 PFDoA	54		26 - 130
18O2 PFHxS	105		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1155

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/27/2010 1817
Date Prepared: 02/23/2010 0839

Analysis Batch: [REDACTED]

Prep Batch: [REDACTED]

Instrument ID: [REDACTED]

Lab File ID: [REDACTED]

Initial Weight/Volume: 239 mL

Final Weight/Volume: 5 mL

Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.044		0.0086	0.021
Perfluorobutanoic acid (PFBA)	0.015	J	0.010	0.021
Perfluorodecanoic acid (PFDA)	ND		0.0082	0.021
Perfluorododecanoic acid (PFDoA)	ND		0.016	0.031
Perfluoroheptanoic acid (PFHpA)	0.054		0.014	0.031
Perfluorohexane Sulfonate (PFHxS)	0.065		0.0073	0.031
Perfluorohexanoic acid (PFHxA)	0.054		0.0030	0.021
Perfluorononanoic acid (PFNA)	ND		0.018	0.042
Perfluorooctanoic acid (PFOA)	0.10		0.010	0.021
Perfluorooctane Sulfonate (PFOS)	0.032		0.014	0.031
Perfluoropentanoic acid (PFPA)	0.037		0.011	0.031
Perfluorotetradecanoic acid (PFTeA)	ND		0.015	0.031
Perfluorotridecanoic Acid (PFTriA)	ND		0.019	0.042
Perfluoroundecanoic acid (PFUnA)	ND		0.0072	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	78		60 - 155
13C4 PFOS	45		45 - 130
13C4 PFBA	78		36 - 130
13C2 PFHxA	80		55 - 135
13C5 PFNA	61		54 - 132
13C2 PFDA	44	X	53 - 130
13C2 PFUnA	31	X	37 - 130
13C2 PFDoA	29		26 - 130
18O2 PFHxS	71		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1155

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 03/08/2010 2156
Date Prepared: 03/02/2010 0842

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 236 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.037	H	0.0087	0.021
Perfluorobutanoic acid (PFBA)	0.013	J H	0.010	0.021
Perfluorodecanoic acid (PFDA)	ND	H	0.0083	0.021
Perfluorododecanoic acid (PFDoA)	ND	H	0.016	0.032
Perfluoroheptanoic acid (PFHpA)	0.039	H	0.014	0.032
Perfluorohexane Sulfonate (PFHxS)	0.052	H	0.0074	0.032
Perfluorohexanoic acid (PFHxA)	0.046	H	0.0031	0.021
Perfluorononanoic acid (PFNA)	ND	H	0.018	0.042
Perfluorooctanoic acid (PFOA)	0.087	H	0.010	0.021
Perfluorooctane Sulfonate (PFOS)	0.026	J H	0.014	0.032
Perfluoropentanoic acid (PFPA)	0.031	J H	0.012	0.032
Perfluorotetradecanoic acid (PFTeA)	ND	H	0.015	0.032
Perfluorotridecanoic Acid (PFTriA)	ND	H	0.019	0.042
Perfluoroundecanoic acid (PFUnA)	ND	H	0.0073	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	109		60 - 155
13C4 PFOS	77		45 - 130
13C4 PFBA	100		36 - 130
13C2 PFHxA	102		55 - 135
13C5 PFNA	91		54 - 132
13C2 PFDA	70		53 - 130
13C2 PFUnA	64		37 - 130
13C2 PFDoA	54		26 - 130
18O2 PFHxS	99		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID:

Lab Sample ID:

Client Matrix: Water

Date Sampled: 02/16/2010 1205

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/27/2010 1847
Date Prepared: 02/23/2010 0839

Analysis Batch:

Prep Batch:

Instrument ID:

Lab File ID:

Initial Weight/Volume: 252 mL

Final Weight/Volume: 5 mL

Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.021		0.0082	0.020
Perfluorobutanoic acid (PFBA)	ND		0.0097	0.020
Perfluorodecanoic acid (PFDA)	ND		0.0078	0.020
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.030
Perfluoroheptanoic acid (PFHpA)	0.019	J	0.013	0.030
Perfluorohexane Sulfonate (PFHxS)	0.017	J	0.0069	0.030
Perfluorohexanoic acid (PFHxA)	0.024		0.0029	0.020
Perfluorononanoic acid (PFNA)	ND		0.017	0.040
Perfluorooctanoic acid (PFOA)	0.026		0.0097	0.020
Perfluorooctane Sulfonate (PFOS)	ND		0.013	0.030
Perfluoropentanoic acid (PFPA)	0.015	J	0.011	0.030
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.030
Perfluorotridecanoic Acid (PFTriA)	ND		0.018	0.040
Perfluoroundecanoic acid (PFUnA)	ND		0.0068	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	83		60 - 155
13C4 PFOS	49		45 - 130
13C4 PFBA	80		36 - 130
13C2 PFHxA	84		55 - 135
13C5 PFNA	65		54 - 132
13C2 PFDA	42	X	53 - 130
13C2 PFUnA	28	X	37 - 130
13C2 PFDoA	23	X	26 - 130
18O2 PFHxS	76		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1205

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 03/08/2010 2211
Date Prepared: 03/02/2010 0842

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 235 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 µL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.016	J H	0.0088	0.021
Perfluorobutanoic acid (PFBA)	ND	H	0.010	0.021
Perfluorodecanoic acid (PFDA)	ND	H	0.0083	0.021
Perfluorododecanoic acid (PFDoA)	ND	H	0.016	0.032
Perfluoroheptanoic acid (PFHpA)	0.014	J H	0.014	0.032
Perfluorohexane Sulfonate (PFHxS)	0.015	J H	0.0074	0.032
Perfluorohexanoic acid (PFHxA)	0.018	J H	0.0031	0.021
Perfluorononanoic acid (PFNA)	ND	H	0.019	0.043
Perfluorooctanoic acid (PFOA)	0.016	J H	0.010	0.021
Perfluorooctane Sulfonate (PFOS)	ND	H	0.014	0.032
Perfluoropentanoic acid (PFPA)	0.014	J H	0.012	0.032
Perfluorotetradecanoic acid (PFTeA)	ND	H	0.015	0.032
Perfluorotridecanoic Acid (PFTriA)	ND	H	0.019	0.043
Perfluoroundecanoic acid (PFUnA)	ND	H	0.0073	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	110		60 - 155
13C4 PFOS	91		45 - 130
13C4 PFBA	102		36 - 130
13C2 PFHxA	108		55 - 135
13C5 PFNA	103		54 - 132
13C2 PFDA	78		53 - 130
13C2 PFUnA	78		37 - 130
13C2 PFDoA	64		26 - 130
18O2 PFHxS	102		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1433

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/27/2010 1902
Date Prepared: 02/23/2010 0839

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 233 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.046		0.0088	0.021
Perfluorobutanoic acid (PFBA)	0.039		0.011	0.021
Perfluorodecanoic acid (PFDA)	0.048		0.0084	0.021
Perfluorododecanoic acid (PFDoA)	ND		0.016	0.032
Perfluoroheptanoic acid (PFHpA)	0.059		0.014	0.032
Perfluorohexane Sulfonate (PFHxS)	ND		0.0075	0.032
Perfluorohexanoic acid (PFHxA)	0.073		0.0031	0.021
Perfluorononanoic acid (PFNA)	0.025	J	0.019	0.043
Perfluorooctanoic acid (PFOA)	0.13		0.011	0.021
Perfluorooctane Sulfonate (PFOS)	0.020	J	0.014	0.032
Perfluoropentanoic acid (PFPA)	0.093		0.012	0.032
Perfluorotetradecanoic acid (PFTeA)	ND		0.016	0.032
Perfluorotridecanoic Acid (PFTrIA)	ND		0.019	0.043
Perfluoroundecanoic acid (PFUnA)	ND		0.0074	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	82		60 - 155
13C4 PFOS	49		45 - 130
13C4 PFBA	76		36 - 130
13C2 PFHxA	84		55 - 135
13C5 PFNA	60		54 - 132
13C2 PFDA	42	X	53 - 130
13C2 PFUnA	37		37 - 130
13C2 PFDoA	38		26 - 130
18O2 PFHxS	81		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1444

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/27/2010 1917
Date Prepared: 02/23/2010 0839

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 243 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0085	0.021
Perfluorobutanoic acid (PFBA)	ND		0.010	0.021
Perfluorodecanoic acid (PFDA)	ND		0.0080	0.021
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.031
Perfluoroheptanoic acid (PFHpA)	ND		0.014	0.031
Perfluorohexane Sulfonate (PFHxS)	ND		0.0072	0.031
Perfluorohexanoic acid (PFHxA)	ND		0.0030	0.021
Perfluorononanoic acid (PFNA)	ND		0.018	0.041
Perfluorooctanoic acid (PFOA)	ND		0.010	0.021
Perfluorooctane Sulfonate (PFOS)	ND		0.014	0.031
Perfluoropentanoic acid (PFPA)	ND		0.011	0.031
Perfluorotetradecanoic acid (PFTeA)	ND		0.015	0.031
Perfluorotridecanoic Acid (PFTriA)	ND		0.018	0.041
Perfluoroundecanoic acid (PFUnA)	ND		0.0071	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	92		60 - 155
13C4 PFOS	47		45 - 130
13C4 PFBA	81		36 - 130
13C2 PFHxA	87		55 - 135
13C5 PFNA	67		54 - 132
13C2 PFDA	40	X	53 - 130
13C2 PFUnA	32	X	37 - 130
13C2 PFDoA	29		26 - 130
18O2 PFHxS	86		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1444

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 03/08/2010 2241
Date Prepared: 03/02/2010 0842

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 236 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND	H	0.0087	0.021
Perfluorobutanoic acid (PFBA)	ND	H	0.010	0.021
Perfluorodecanoic acid (PFDA)	ND	H	0.0083	0.021
Perfluorododecanoic acid (PFDoA)	ND	H	0.016	0.032
Perfluoroheptanoic acid (PFHpA)	ND	H	0.014	0.032
Perfluorohexane Sulfonate (PFHxS)	ND	H	0.0074	0.032
Perfluorohexanoic acid (PFHxA)	ND	H	0.0031	0.021
Perfluorononanoic acid (PFNA)	ND	H	0.018	0.042
Perfluorooctanoic acid (PFOA)	ND	H	0.010	0.021
Perfluorooctane Sulfonate (PFOS)	ND	H	0.014	0.032
Perfluoropentanoic acid (PFPA)	ND	H	0.012	0.032
Perfluorotetradecanoic acid (PFTeA)	ND	H	0.015	0.032
Perfluorotridecanoic Acid (PFTriA)	ND	H	0.019	0.042
Perfluoroundecanoic acid (PFUnA)	ND	H	0.0073	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	111		60 - 155
13C4 PFOS	76		45 - 130
13C4 PFBA	102		36 - 130
13C2 PFHxA	104		55 - 135
13C5 PFNA	88		54 - 132
13C2 PFDA	68		53 - 130
13C2 PFUnA	71		37 - 130
13C2 PFDoA	55		26 - 130
18O2 PFHxS	103		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1503

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/27/2010 1932
Date Prepared: 02/23/2010 0839

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 257 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0080	0.019
Perfluorobutanec acid (PFBA)	ND		0.0095	0.019
Perfluorodecanoic acid (PFDA)	ND		0.0076	0.019
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.029
Perfluoroheptanoic acid (PFHpA)	ND		0.013	0.029
Perfluorohexane Sulfonate (PFHxS)	ND		0.0068	0.029
Perfluorohexanoic acid (PFHxA)	0.0067	J	0.0028	0.019
Perfluorononanoic acid (PFNA)	ND		0.017	0.039
Perfluorooctanoic acid (PFOA)	0.021		0.0095	0.019
Perfluorooctane Sulfonate (PFOS)	ND		0.013	0.029
Perfluoropentanoic acid (PFPA)	ND		0.011	0.029
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.029
Perfluorotridecanoic Acid (PFTrIA)	ND		0.017	0.039
Perfluoroundecanoic acid (PFUnA)	ND		0.0067	0.019

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	83		60 - 155
13C4 PFOS	44	X	45 - 130
13C4 PFBA	76		36 - 130
13C2 PFHxA	82		55 - 135
13C5 PFNA	63		54 - 132
13C2 PFDA	41	X	53 - 130
13C2 PFUnA	34	X	37 - 130
13C2 PFDoA	35		26 - 130
18O2 PFHxS	72		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1503

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 03/08/2010 2256
Date Prepared: 03/02/2010 0842

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 235 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND	H	0.0088	0.021
Perfluorobutanoic acid (PFBA)	ND	H	0.010	0.021
Perfluorodecanoic acid (PFDA)	ND	H	0.0083	0.021
Perfluorododecanoic acid (PFDoA)	ND	H	0.016	0.032
Perfluoroheptanoic acid (PFHpA)	ND	H	0.014	0.032
Perfluorohexane Sulfonate (PFHxS)	ND	H	0.0074	0.032
Perfluorohexanoic acid (PFHxA)	0.0044	J H	0.0031	0.021
Perfluorononanoic acid (PFNA)	ND	H	0.019	0.043
Perfluorooctanoic acid (PFOA)	0.016	J H	0.010	0.021
Perfluorooctane Sulfonate (PFOS)	ND	H	0.014	0.032
Perfluoropentanoic acid (PFPA)	ND	H	0.012	0.032
Perfluorotetradecanoic acid (PFTeA)	ND	H	0.015	0.032
Perfluorotridecanoic Acid (PFTriA)	ND	H	0.019	0.043
Perfluoroundecanoic acid (PFUnA)	ND	H	0.0073	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	108		60 - 155
13C4 PFOS	64		45 - 130
13C4 PFBA	103		36 - 130
13C2 PFHxA	109		55 - 135
13C5 PFNA	87		54 - 132
13C2 PFDA	53		53 - 130
13C2 PFUnA	55		37 - 130
13C2 PFDoA	50		26 - 130
18O2 PFHxS	112		61 - 130

Analytical Data

Job Number: 280-764-1

Client: Dalton Utilities

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1514

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/27/2010 1947
Date Prepared: 02/23/2010 0839

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 241 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.011	J	0.0085	0.021
Perfluorobutanoic acid (PFBA)	ND		0.010	0.021
Perfluorodecanoic acid (PFDA)	ND		0.0081	0.021
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.031
Perfluoroheptanoic acid (PFHpA)	0.024	J	0.014	0.031
Perfluorohexane Sulfonate (PFHxS)	0.016	J	0.0072	0.031
Perfluorohexanoic acid (PFHxA)	0.023		0.0030	0.021
Perfluorononanoic acid (PFNA)	ND		0.018	0.041
Perfluorooctanoic acid (PFOA)	0.065		0.010	0.021
Perfluorooctane Sulfonate (PFOS)	ND		0.014	0.031
Perfluoropentanoic acid (PFPA)	0.017	J	0.011	0.031
Perfluorotetradecanoic acid (PFTeA)	ND		0.015	0.031
Perfluorotridecanoic Acid (PFTrIA)	ND		0.018	0.041
Perfluoroundecanoic acid (PFUnA)	ND		0.0071	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	91		60 - 155
13C4 PFOS	49		45 - 130
13C4 PFBA	83		36 - 130
13C2 PFHxA	91		55 - 135
13C5 PFNA	65		54 - 132
13C2 PFDA	45	X	53 - 130
13C2 PFUnA	42		37 - 130
13C2 PFDoA	41		26 - 130
18O2 PFHxS	87		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID:

Lab Sample ID:

Client Matrix: Water

Date Sampled: 02/17/2010 1514

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 03/08/2010 2311
Date Prepared: 03/02/2010 0842

Analysis Batch:
Prep Batch:

Instrument ID:
Lab File ID:
Initial Weight/Volume: 228 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND	H	0.0090	0.022
Perfluorobutanoic acid (PFBA)	ND	H	0.011	0.022
Perfluorodecanoic acid (PFDA)	ND	H	0.0086	0.022
Perfluorododecanoic acid (PFDoA)	ND	H	0.016	0.033
Perfluoroheptanoic acid (PFHpA)	0.021	J H	0.014	0.033
Perfluorohexane Sulfonate (PFHxS)	0.013	J H	0.0076	0.033
Perfluorohexanoic acid (PFHxA)	0.018	J H	0.0032	0.022
Perfluorononanoic acid (PFNA)	ND	H	0.019	0.044
Perfluorooctanoic acid (PFOA)	0.051	H	0.011	0.022
Perfluorooctane Sulfonate (PFOS)	ND	H	0.015	0.033
Perfluoropentanoic acid (PFPA)	0.017	J H	0.012	0.033
Perfluorotetradecanoic acid (PFTeA)	ND	H	0.016	0.033
Perfluorotridecanoic Acid (PFTriA)	ND	H	0.019	0.044
Perfluoroundecanoic acid (PFUnA)	ND	H	0.0076	0.022

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	102		60 - 155
13C4 PFOS	65		45 - 130
13C4 PFBA	100		36 - 130
13C2 PFHxA	104		55 - 135
13C5 PFNA	84		54 - 132
13C2 PFDA	59		53 - 130
13C2 PFUnA	63		37 - 130
13C2 PFDoA	54		26 - 130
18O2 PFHxS	100		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/19/2010 0828

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
 Preparation: 3535
 Dilution: 1.0
 Date Analyzed: 02/27/2010 2002
 Date Prepared: 02/23/2010 0839

Analysis Batch: [REDACTED]
 Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
 Lab File ID: [REDACTED]
 Initial Weight/Volume: 240 mL
 Final Weight/Volume: 5 mL
 Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0086	0.021
Perfluorobutanoic acid (PFBA)	ND		0.010	0.021
Perfluorodecanoic acid (PFDA)	ND		0.0081	0.021
Perfluorododecanoic acid (PFDoA)	ND		0.016	0.031
Perfluoroheptanoic acid (PFHpA)	ND		0.014	0.031
Perfluorohexane Sulfonate (PFHxS)	ND		0.0073	0.031
Perfluorohexanoic acid (PFHxA)	ND		0.0030	0.021
Perfluorononanoic acid (PFNA)	ND		0.018	0.042
Perfluorooctanoic acid (PFOA)	ND		0.010	0.021
Perfluorooctane Sulfonate (PFOS)	ND		0.014	0.031
Perfluoropentanoic acid (PFPA)	ND		0.011	0.031
Perfluorotetradecanoic acid (PFTeA)	ND		0.015	0.031
Perfluorotridecanoic Acid (PFTriA)	ND		0.018	0.042
Perfluoroundecanoic acid (PFUnA)	ND		0.0072	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	97		60 - 155
13C4 PFOS	57		45 - 130
13C4 PFBA	84		36 - 130
13C2 PFHxA	90		55 - 135
13C5 PFNA	71		54 - 132
13C2 PFDA	48	X	53 - 130
13C2 PFUnA	46		37 - 130
13C2 PFDoA	44		26 - 130
18O2 PFHxS	89		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/19/2010 0828

Date Received: 02/20/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method: DV-LC-0012
Preparation: 3535
Dilution: 1.0
Date Analyzed: 03/09/2010 1032
Date Prepared: 03/02/2010 0842

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 234 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND	H	0.0088	0.021
Perfluorobutanoic acid (PFBA)	ND	H	0.010	0.021
Perfluorodecanoic acid (PFDA)	ND	H	0.0084	0.021
Perfluorododecanoic acid (PFDoA)	ND	H	0.016	0.032
Perfluoroheptanoic acid (PFHpA)	ND	H	0.014	0.032
Perfluorohexane Sulfonate (PFHxS)	ND	H	0.0074	0.032
Perfluorohexanoic acid (PFHxA)	ND	H	0.0031	0.021
Perfluorononanoic acid (PFNA)	ND	H	0.019	0.043
Perfluorooctanoic acid (PFOA)	ND	H	0.010	0.021
Perfluorooctane Sulfonate (PFOS)	ND	H	0.014	0.032
Perfluoropentanoic acid (PFPA)	ND	H	0.012	0.032
Perfluorotetradecanoic acid (PFTeA)	ND	H	0.016	0.032
Perfluorotridecanoic Acid (PFTriA)	ND	H	0.019	0.043
Perfluoroundecanoic acid (PFUnA)	ND	H	0.0074	0.021

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	104		60 - 155
13C4 PFOS	76		45 - 130
13C4 PFBA	106		36 - 130
13C2 PFHxA	106		55 - 135
13C5 PFNA	91		54 - 132
13C2 PFDA	71		53 - 130
13C2 PFUnA	73		37 - 130
13C2 PFDoA	65		26 - 130
18O2 PFHxS	95		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1124

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/28/2010 0752
Date Prepared: 02/23/2010 0828

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 233 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	*	0.0061	0.054
Surrogate	%Rec	Qualifier	Acceptance Limits	
MeFOSA (Surr)	46		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1132

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/28/2010 0757
Date Prepared: 02/23/2010 0828

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 244 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	*	0.0059	0.051

Surrogate	%Rec	Qualifier	Acceptance Limits
MeFOSA (Surr)	23	X	37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1132

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 03/08/2010 0205
Date Prepared: 03/02/2010 0827

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 235 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 µL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	H *	0.0061	0.053
Surrogate	%Rec	Qualifier	Acceptance Limits	
MeFOSA (Surr)	49		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1155

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/28/2010 0802
Date Prepared: 02/23/2010 0828

Analysis Batch: [REDACTED]

Prep Batch: [REDACTED]

Instrument ID: [REDACTED]

Lab File ID: [REDACTED]

Initial Weight/Volume: 247 mL

Final Weight/Volume: 5 mL

Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	*	0.0058	0.051

Surrogate	%Rec	Qualifier	Acceptance Limits
MeFOSA (Surr)	66		37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/16/2010 1205

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA

Analysis Batch: [REDACTED]

Instrument ID: [REDACTED]

Preparation: 3535

Prep Batch: [REDACTED]

Lab File ID: [REDACTED]

Dilution: 1.0

Initial Weight/Volume: 241 mL

Date Analyzed: 02/28/2010 0812

Final Weight/Volume: 5 mL

Date Prepared: 02/23/2010 0828

Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	.	0.0059	0.052
Surrogate	%Rec	Qualifier	Acceptance Limits	
MeFOSA (Surr)	44		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1433

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/28/2010 0817
Date Prepared: 02/23/2010 0828

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 247 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	*	0.0058	0.051

Surrogate	%Rec	Qualifier	Acceptance Limits
MeFOSA (Surr)	14	X	37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1433

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 03/08/2010 0210
Date Prepared: 03/02/2010 0827

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 238 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	H *	0.0060	0.053
Surrogate	%Rec	Qualifier	Acceptance Limits	
MeFOSA (Sum)	53		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1444

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA

Analysis Batch: [REDACTED]

Instrument ID: [REDACTED]

Preparation: 3535

Prep Batch: [REDACTED]

Lab File ID: [REDACTED]

Dilution: 1.0

Initial Weight/Volume: 247 mL

Date Analyzed: 02/28/2010 0822

Final Weight/Volume: 5 mL

Date Prepared: 02/23/2010 0828

Injection Volume: 20 µL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	*	0.0058	0.051

Surrogate	%Rec	Qualifier	Acceptance Limits
MeFOSA (Surr)	48		37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1503

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/28/2010 0827
Date Prepared: 02/23/2010 0828

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 244 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	-	0.0059	0.051
Surrogate	%Rec	Qualifier	Acceptance Limits	
MeFOSA (Sum)	55		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/17/2010 1514

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/28/2010 0832
Date Prepared: 02/23/2010 0828

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 242 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	*	0.0059	0.052

Surrogate	%Rec	Qualifier	Acceptance Limits
MeFOSA (Surr)	21	X	37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-764-1

Client Sample ID: [REDACTED]

Lab Sample ID: [REDACTED]

Client Matrix: Water

Date Sampled: 02/19/2010 0828

Date Received: 02/20/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 02/28/2010 0837
Date Prepared: 02/23/2010 0828

Analysis Batch: [REDACTED]
Prep Batch: [REDACTED]

Instrument ID: [REDACTED]
Lab File ID: [REDACTED]
Initial Weight/Volume: 256 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 µL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND	-	0.0056	0.049
Surrogate	%Rec	Qualifier	Acceptance Limits	
MeFOSA (Sur)	53		37 - 130	

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March 25, 2010

VIA COURIER

Gail Mitchell, Deputy Director
Water Protection Division
U.S. EPA Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

**Re: October 6, 2009, Information Request – Section 308 of the Clean
Water Act - Dalton Utilities Land Application System**

Dear Ms. Mitchell:

Enclosed with this letter is information from Dalton Utilities in response to EPA's October 6, 2009, Section 308 of the Clean Water Act request (the "Request") addressed to Mr. Don Cope, President and CEO of Dalton Utilities. The enclosures are a letter dated March 25, 2010, with a certification signed pursuant to the Request and information responsive to various Paragraphs of Enclosure A of the Request, **Monthly Report and Analytical Reports**.

Please contact me if have any questions regarding the information supplied pursuant to the Request.

Sincerely,



Lee A. DeHihns, III

LAD:gba
Enclosures

LEGAL02/31578197v14



March 25, 2010

Ms. Gail Mitchell, Deputy Director
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Information Request Pursuant to Section 308 of the Clean Water Act
Monthly Progress Report

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting this Monthly Progress Report to you.

Dalton Utilities submitted the Drinking Water Well Survey (Drinking Water Report), Drinking Water Well Monitoring Report, Composted Biosolids Monitoring Plan, Compost Use Review Report, and Well Construction Records on November 4, November 5, November 2, November 2, and October 23, 2009, respectively, in response to the aforementioned Information Request. Additionally, Dalton Utilities submitted revised versions of these documents on January 13, 2010, in accordance with comments from the United States Environmental Protection Agency (EPA) dated December 22, 2009.

As previously reported to you, Dalton Utilities has instituted the quarterly sampling of the seven private drinking water wells shown to have levels of Perfluorooctanoic Acid (PFOA) or Perfluorooctane Sulfonate (PFOS) above the contract laboratory's reporting limit or level of quantification and below the published public health advisory level as well as the two additional wells found to have levels of Perfluorinated Chemicals (PFC) other than PFOA or PFOS above the contract laboratory's reporting limit or level of quantification. The final analytical results of the third quarter of sampling are contained in Attachment A which is provided herein as a bound report titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Job # 280-764-1 which contains 613 pages. These locations are scheduled to be sampled again in May 2010.

Ms. Gail Mitchell
March 25, 2010
Page 2 of 3

In accordance with the Composted Biosolids Monitoring Plan, samples were collected of the three batches of compost aged approximately 6, 12, and 18 months at the time of the August 5, 2009, correspondence to Mr. Hom in October 2009. This sampling was repeated on February 17, 2010, and is scheduled to be repeated again in June 2010, in accordance with the four month interval stipulated in the aforementioned Information Request and Monitoring Plan. The final analytical sample results will be submitted to EPA as stipulated in the aforementioned information request after receipt.

In accordance with the Compost Use Review Report, Dalton Utilities has submitted to EPA all the final analytical reports received to date for these locations where compost was used as a soil amendment and private drinking water wells at the same location, if any. The final analytical results of background soil samples and additional quality control samples are contained in Attachment B which is provided herein as a bound report titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Job # 280-1118-2 which contains 357 pages.

Additionally, samples of the locations stipulated in the aforementioned Information Request's Enclosure A, Paragraph 5 were collected as required for the first two quarters and submitted to a contract lab for analysis. All analytical sample results received to date have been submitted to EPA. These locations are scheduled to be sampled for the final quarterly sample in April 2010.

As noted in our correspondence to Mr. Hom dated October 20, 2009, Dalton Utilities has partnered with the Sustainability Division of the Georgia Department of Natural Resources (DNR) and the University of Georgia (UGA) to conduct a survey to evaluate the current usage and potential levels of PFCs in the industrial discharges into our wastewater collection system. The sampling was completed in early February 2010 and Dalton Utilities is awaiting the results and final report on this project.

Further, Dalton Utilities has conducted additional sampling of the influent, untreated wastewater, and effluent, treated wastewater, from the Riverbend and Loopers wastewater treatment plants. The final analytical results of this sampling event are contained in Attachment C which is provided herein as a bound report titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Job # 280-1118-1 which contains 248 pages.

For your convenience, a summary of the samples identifications indicated in the attachments and the corresponding locations are included in Attachment D.

As always, Dalton Utilities will update you as the projects discussed with you proceed. If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system,

Ms. Gail Mitchell
March 25, 2010
Page 3 of 3

or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Cope", with a long horizontal flourish extending to the right.

Don Cope
President & CEO

Attachments (4)

- c: Mr. Allen Barnes, Georgia Environmental Protection Division (cover letter only)
- Dr. Marlin Gottschalk, Sustainability Division Georgia Department of Natural Resources (cover letter only)
- Dr. Bert Langley, Georgia Environmental Protection Division (cover letter only)
- Lee A. DeHihns, Esq.

Summary of Sample Identifications and Locations

<u>Attachment</u>	<u>Job #</u>	<u>Type of Sample</u>	<u>Sample ID</u>	<u>Sample Location/Description</u>
A	280-764-1	Private Well Survey		
A	280-764-1	Private Well Survey		
A	280-764-1	Private Well Survey		
A	280-764-1	Private Well Survey		
A	280-764-1	Private Well Survey		
A	280-764-1	Private Well Survey		
A	280-764-1	Private Well Survey		
A	280-764-1	Private Well Survey		
A	280-764-1	Private Well Survey		
B	280-1118-2	Compost Use	Trip Blank	Trip Blank
B	280-1118-2	Compost Use	Field Blank	Field Blank
B	280-1118-2	Compost Use	Equipment Blank	Equipment Blank
B	280-1118-2	Compost Use	03042010 #1	Background Soil - 1975 Hwy 52 East, Chatsworth, GA 30705
B	280-1118-2	Compost Use	03042010 #2	Background - 55 South Lake Drive, Chatsworth GA 30705
C	280-1118-1	Influent	I-3	Riverbend WWTP Influent
C	280-1118-1	Effluent	E-3	Riverbend WWTP Effluent
C	280-1118-1	Influent	I-4	Loopers WWTP Influent
C	280-1118-1	Effluent	E-4	Loopers WWTP Effluent



November 5, 2009

Ms. Gail Mitchell, Deputy Director
Clean Water Enforcement Branch
Water Protection Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Information Request Pursuant to Section 308 of the Clean Water Act
Private Drinking Water Well Monitoring Report

Dear Ms. Mitchell,

In accordance with the Information Request pursuant to Section 308 of the Clean Water Act dated October 6, 2009, Dalton Utilities is submitting to EPA for review and approval the Private Drinking Water Well Monitoring Report (see Attachment A).

If you have any questions, please contact me at 706-529-1091 or dcope@dutil.com.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false

Ms. Gail Mitchell
November 5, 2009
Page 2 of 2

information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Cope", with a long horizontal flourish extending to the right.

Don Cope
President & CEO

Attachment

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- Lee A. DeHihns, Esq.

Dalton Utilities

Private Drinking Water Well Monitoring Report

October 2009

Attachment A to November 5, 2009, letter to Ms. Mitchell

Dalton Utilities Drinking Water Well Monitoring Report

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3. Vacant Residences	5
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5. Summary of Analytical Results	6
6. Additional Actions	7
7. Future Reports.....	8

Attachments

Attachment A	Correspondence from North Georgia Health District
Attachment B	List of Compounds for Analyses
Attachment C	List of Locations that Refused Sampling
Attachment D	Analytical Report on PFC Analysis Lot # D9H110160
Attachment E	Analytical Report on PFC Analysis Lot # D9H120160
Attachment F	Analytical Report on PFC Analysis Lot # D9H150176
Attachment G	Analytical Report on PFC Analysis Lot # D9H220152
Attachment H	Analytical Report on PFC Analysis Lot # D9H250123
Attachment I	Analytical Report on PFC Analysis Lot # D9H260198
Attachment J	Analytical Report on PFC Analysis Lot # D9I010246
Attachment K	Analytical Report on PFC Analysis Lot # D9I020235
Attachment L	Analytical Report on PFC Analysis Lot # D9I040249
Attachment M	Analytical Report on PFC Analysis Lot # D9I100275
Attachment N	Analytical Report on PFC Analysis Lot # D9I120206
Attachment O	Analytical Report on PFC Analysis Lot # D9I150267
Attachment P	Summary of Analytical Results
Attachment Q	Map of All Private Well Sample Locations
Attachment R	Map of All Private Well Samples above Reporting Limit

Dalton Utilities Drinking Water Well Monitoring Report

Executive Summary

In May 2009, Dalton Utilities collected samples at various locations on the LAS. In response to sample results obtained from the ground water monitoring wells on the LAS, Dalton Utilities decided to conduct a drinking water well survey to identify private drinking water that had the potential to have been impacted by the ground water coming from the LAS. Dalton Utilities designed the well survey to begin in the immediate vicinity of the LAS in areas deemed to be downgradient and where it was questionable as to the availability of public drinking water and then expand out to test all residential locations that use a well for potable water in a one mile radius around the LAS property boundary.

The private drinking water well survey was conducted in accordance with Dalton Utilities Private Drinking Water Well Survey Protocol. The private drinking water well survey began in August 2009 and is essentially complete. The lists of residential locations by road name were confirmed and corrected using actual field surveys of each and every road to ensure all locations were identified and included in the private well survey. Each location was cross checked against Dalton Utilities drinking water customer database in addition to the other public drinking water systems in the area. Any location not shown to have public drinking water was surveyed to determine if the location utilized a private well for its drinking water source. If a private well was being utilized for drinking water, the well was immediately sampled to determine the levels of Perfluorinated Compounds (PFCs), if any, in the private well.

The private drinking water wells sample results indicated 102 wells did not have levels of PFOA and PFOS above the contract laboratory's reporting limit or level of quantification. Seven wells indicated levels of PFOA or PFOS at or above the contract laboratory's reporting limit or level of quantification and require quarterly sampling for at least four consecutive quarters. One well was indicated a level of PFOS at or slightly above the published public health advisory level. The resident at this location is being provided bottled water pending connection to public water. None of the wells sampled indicated levels of PFOA above the published public health advisory level.

Beyond these follow up actions and based on the results of the private drinking water well survey, no additional survey work is required at this time.

Dalton Utilities Drinking Water Well Monitoring Report

Drinking Water Well Monitoring Report

1. Identified Locations for Survey

In accordance with Dalton Utilities Private Drinking Water Well Survey Protocol, all locations within a one mile radius of Dalton Utilities Land Application System (LAS) boundary were compiled. These locations were then cross referenced against Dalton Utilities' customer database in addition to the other public drinking water systems in the area. Any location not shown to have public drinking water was compiled as locations for potential sampling as part of this project.

These locations were then contacted via telephone and/or in person by representatives of Dalton Utilities to verify if a private drinking water well was being utilized by the residence. If a private well was being utilized as the primary drinking water source, permission was obtained from an adult resident to sample the well with respect to PFCs. If a public water system connection was being utilized as the primary source of drinking water, it was noted in the records and no sample was collected.

All locations noted in the field to not be a part of the existing list of potential survey locations were added to the list and the residents contacted to determine the presence of a private drinking water well and sampling conducted, if necessary. Any location found to utilize a public drinking system connection was noted as such in the survey records and no sample was collected.

At the suggestion of the United States Environmental Protection Agency (EPA), Dalton Utilities sought to review any Intent to Drill forms the Whitfield County and Murray County Health Department possessed for locations within the survey's one mile radius. Per the District Director of Environmental Health of the North Georgia Health District, which includes Whitfield and Murray Counties, they do not have any such forms for locations within the targeted area. Therefore, no additional locations were compiled from this source. The correspondence from the North Georgia Health District to Dalton Utilities dated October 20, 2009, is attached herein as Attachment A.

To ensure no additional locations exist in the survey radius, Dalton Utilities has requested all available information from the Georgia Environmental Protection Division as they are the governing agency for well drillers in the State of Georgia per the North Georgia Health District's correspondence. Any additional locations in the survey radius determined to not be part of the initial survey will be added to the list and the residents contacted to determine the presence of a private drinking water well and sampling conducted, if necessary. Any subsequent analytical results received by Dalton Utilities pursuant to this sampling will be submitted to EPA within five (5) days and included in the monthly progress report to EPA in accordance with the Clean Water Act (CWA) Section 308 letter from Mr. James Giattina, EPA, to Dalton Utilities dated October 6, 2009.

Dalton Utilities Drinking Water Well Monitoring Report

To date, Dalton Utilities has surveyed over 1,900 locations on XX roads to determine the existence of a private drinking water well within the one mile radius of Dalton Utilities Land Application System (LAS) boundary. All of the locations compiled through the methodology delineated in the Dalton Utilities Private Drinking Water Well Survey Protocol have been surveyed.

2. Sample Collection

Identified locations were verified to utilize either a public water system connection or private well as their primary source of drinking water. If a private drinking water well was being utilized, a sample was collected immediately after obtaining verbal permission from an adult resident. The sample was collected by qualified personnel and in accordance with EPA's Standard Operating Procedure for Potable Water Supply Sampling, SESDPROC-305-R1. Latitudes and longitudes, using Global Positioning System (GPS) equipment, were also obtained for each sample collection location.

The sample was then properly labeled and submitted to a contract laboratory for analysis of the compounds indicated in Attachment B. At the time of this survey, the selected contract laboratory did not have standards and/or validated methods developed for the additional Perfluorinated chemicals (PFCs) noted in the Clean Water Act (CWA) Section 308 letter from Mr. James Giattina, EPA, to Dalton Utilities dated October 6, 2009. As such, the list of compounds indicated in Attachment B reflects the full current analytical capabilities of the contract laboratory as well as the corresponding detection limits with respect to PFCs.

To date, Dalton Utilities has verified that 1,760 locations surveyed utilized a public water system connection. 115 private wells were found as being utilized as primary sources of drinking water. Verbal consent was obtained from an adult resident for 110 of the private drinking water wells. The residents at five locations found to utilize a private drinking water well refused to grant Dalton Utilities access to the private well for sampling purposes (see Attachment C for locations). All 110 of the consenting locations were sampled immediately following verification and consent and were analyzed for the compounds listed in Attachment B.

3. Vacant Residences

For locations where there were no signs of occupancy, such as foreclosed or abandoned properties, contact with a resident could not be made. Dalton Utilities is researching property records to determine additional means of notification and sending written correspondence to these addresses requesting the owner contact Dalton Utilities to determine the existence of a private drinking water well and coordinate sampling of the well, if any. Any subsequent analytical results received by Dalton Utilities pursuant to this sampling will be submitted to EPA

Dalton Utilities Drinking Water Well Monitoring Report

within five (5) days and included in the monthly progress report to EPA in accordance with the Clean Water Act (CWA) Section 308 letter from Mr. James Giattina, EPA, to Dalton Utilities dated October 6, 2009.

4. Sample Analyses

Post collection, samples were properly labeled and submitted to a contract laboratory for analysis of the compounds indicated in Attachment B. The samples were analyzed in accordance with the contract laboratory's standards, protocols, and validated methodology which is noted as DEN-LC-0012 in the final analytical reports. At the time of this survey, the selected contract laboratory did not have standards and/or validated methods developed for the additional Perfluorinated chemicals (PFCs) noted in the Clean Water Act (CWA) Section 308 letter from Mr. James Giattina, EPA, to Dalton Utilities dated October 6, 2009. As such, the list of compounds indicated in Attachment B reflects the full current analytical capabilities of the contract laboratory as well as the corresponding detection limits with respect to PFCs.

Final analytical results for all wells received to date by Dalton Utilities are attached as Attachments D, E, F, G, H, I, J, K, L, M, N, and O which are provided herein as bound reports titled Test America Laboratories, Inc. Analytical Report on Perfluorocarbon (PFC) Analysis Lot # D9H110160 which contains 642 pages, Lot # D9H120160 which contains 230 pages, Lot # D9H150176 which contains 473 pages, Lot # D9H220152 which contains 480 pages, Lot # D9H250123 which contains 326 pages, Lot # D9H260198 which contains 331 pages, Lot # D9I010246 which contains 700 pages, Lot # D9I020235 which contains 387 pages, Lot # D9I040249 which contains 859 pages, Lot # D9I100275 which contains 276 pages, Lot # D9I120206 which contains 503 pages, and Lot # D9I150267 which contains 277 pages, respectively.

Dalton Utilities has received preliminary results for the remaining private wells; however, final analytical results for these wells have not been received from the contract laboratory. In accordance with the Clean Water Act (CWA) Section 308 Information Request from Mr. James Giattina, EPA, to Dalton Utilities dated October 6, 2009, Dalton Utilities will provide EPA with the final analytical results within five (5) days of receipt of said results.

5. Summary of Analytical Results

A summary of the preliminary and final results are attached herein as Attachment P. Additionally, the GPS coordinates collected for each sample location are noted on Attachment P and were uploaded to Dalton Utilities internal geographic information system (GIS) mapping system. The locations where samples were collected from private water wells are illustrated in Attachment Q.

Dalton Utilities Drinking Water Well Monitoring Report

Upon review, you will notice some of the samples collected from private drinking water wells indicated on Attachment Q are outside of the survey's one mile radius. For these locations, there were insufficient markers in the field to properly determine when the full one mile radius had been surveyed. Therefore, to err on the side of caution, the survey continued in these areas until it was verified that the complete one mile radius had been encompassed in the survey.

As shown in Attachment P, of the 110 private wells sampled, 102 wells (93%) were determined to have levels of PFOA and PFOS below the contract laboratory's reporting limit or level of quantification. Further, as indicated in Attachment P, eight wells out of the 110 sampled (7%) were determined to have levels of PFOA or PFOS at or above the contract laboratory's reporting limit or level of quantification. The respective location of the private well samples determined to have levels of PFOA or PFOS at or above the contract laboratory's method detection limit or level of quantification are indicated in Attachment R.

As shown in Attachment R, only one of these eight wells, less than 1% of the total wells sampled, was determined to be at or slightly above the published public health advisory level for PFOS. None of the wells sampled indicated levels of PFOA above the published public health advisory level.

Additionally, as shown in Attachment P, the quality control duplicates, field blanks, and trip blanks indicate the expected results which illustrates the proper procedures were utilized and no unforeseen contamination occurred during the sampling events.

6. Additional Actions

The one well that indicated a level slightly above the published public health advisory for PFOS in the initial sample was resampled to verify the initial results. The resample of this private well also validated the initial sample results as shown in Attachment P.

Upon receipt of the resample results, the resident was notified of the findings and bottled water provided to the home until such time as access to public water is made available. To date, Dalton Utilities has begun the process of connecting this resident to the closest public water system and will continue to furnish the resident with bottled water in the interim.

The seven wells determined to have levels of PFOA or PFOS at or above the contract laboratory's reporting limit or level of quantification and below the published public health advisory were notified of the results and permission from an adult resident obtained to sample the private drinking water well on a quarterly basis for at least four consecutive quarters for the compounds listed in Attachment B until the level of PFOA and PFOS are demonstrated to be reliably and consistently below the published health advisory levels, the private well is no

Dalton Utilities Drinking Water Well Monitoring Report

longer serving as a supply for drinking water, or the private well serving as supply for drinking water is being treated and maintained to levels below the published health advisory levels (e.g. granular activated carbon) in accordance with the Clean Water Act (CWA) Section 308 letter from Mr. James Giattina, EPA, to Dalton Utilities dated October 6, 2009.

The remaining wells that were determined to have levels of PFOA and PFOS below the contract laboratory's reporting limit or level of quantification were advised of the results and that additional actions were not necessary in accordance with the Clean Water Act (CWA) Section 308 letter from Mr. James Giattina, EPA, to Dalton Utilities dated October 6, 2009.

Further, Dalton Utilities has evaluated these results to determine if the expansion of the survey is warranted. As a sufficient number of private wells, 110 wells, were sampled as part of this private drinking water well survey, no lack of private wells to be sampled in the initial one mile radius was found. Dalton Utilities does not have any data on the sampling of other wells, well construction data, information on specific sources of PFOA and PFOS, or data on the existence of any already identified wells located in close proximity to but outside of the initial one mile radius of this survey to be factored into this evaluation.

As only one private drinking water well indicated a level at or above the published health advisory for PFOS, no private wells indicated a level at or above the published health advisory for PFOA, and only approximately 7% of the private wells sampled indicated a level of PFOA or PFOS at or above the contract laboratory's reporting limit or level of quantification, the sample results do not indicate a necessity to expand the private well survey beyond the initial one mile radius from the LAS property boundary. This is further supported by the fact that the one well that exhibited PFOS at or slightly above the published public health advisory level is located immediately adjacent to the land application system property.

7. Future Reports

All additional actions as part of this survey will be reported to EPA as part of the monthly progress report in accordance with the Clean Water Act (CWA) Section 308 letter from Mr. James Giattina, EPA, to Dalton Utilities dated October 6, 2009. Any additional final sample results received by Dalton Utilities as part of the initial survey or quarterly monitoring will be submitted to EPA within five (5) days as stipulated in the Clean Water Act (CWA) Section 308 letter from Mr. James Giattina, EPA, to Dalton Utilities dated October 6, 2009.



Attachment A to Dalton Utilities Private Drinking Water Well Monitoring Report

DHR

North Georgia Health District
District 1, Unit 2

Harold W. Pitts, M.D., J.D.
District Health Director

Georgia Department of Human Resources

100 West Walnut Ave., Suite 92
Dalton, Georgia 30720

(706) 272-2342

FAX (706) 272-2221

October 20, 2009

Dena Haverland
Regulatory Compliance Manager
Dalton Utilities
1200 Parrott, Jr. Parkway
P.O. Box 869
Dalton, GA 30722

RE: Request for Intent to Drill Forms

Dear Dena,

I checked with our environmental health offices in Whitfield and Murray Counties. Murray had a few old forms but none for wells within a one-mile radius of the subject property. Whitfield reported having no intent-to-drill forms.

I was working in public health in 1985 when the Georgia Well Water Standards Act was passed. At first we received great numbers of intent-to-drill forms but over the years compliance declined so that now we receive almost none from well drillers. This seems to be the typical condition throughout Georgia unless a county board of health passes a well location ordinance. Georgia EPD is the governing agency for well drillers and intent-to-drill forms.

I'm sorry we could not be of more help. Please call me if you have any questions or if I may otherwise be of assistance.

Sincerely,

Raymond R. King
District Director of Environmental Health

List of Perfluoridated Compounds (PFC) for Chemical Analyses

As Revised June 17, 2009, by EPA

Compound	Acronym	Reporting Limit (RL) ug/l	Method Detection Limit (MDL) ug/l
Perfluorobutanoic acid	C4	0.02	0.0062
Perfluoropentanoic acid	C5	0.03	0.0082
Perfluorohexanoic acid	C6	0.02	0.0030
Perfluoroheptanoic acid	C7	0.02	0.0054
Perfluorooctanoic acid	C8 / PFOA	0.02	0.0055
Perfluorononanoic acid	C9	0.02	0.0065
Perfluorodecanoic acid	C10	0.02	0.0026
Perfluoroundecanoic acid	C11	0.02	0.0025
Perfluorododecanoic acid	C12	0.02	0.0040
Perfluorotridecanoic acid	C13	0.02	0.0072
Perfluorotetradecanoic acid	C14	0.02	0.0087
Perfluorobutane sulfonate	PFBS	0.02	0.0045
Perfluorohexane sulfonate	PFHxS	0.03	0.0084
Perfluorooctane sulfonate	PFOS	0.02	0.0068
Perfluorooctane sulfonamide	PFOSA	0.05	0.0057

Locations Where Sampling Was Refused

Address	Date
	8/31/2009
	9/3/2009
	9/3/2009
	9/3/2009
	9/3/2009

Attachment P to Dalton Utilities Private Drinking Water Well Monitoring Report

Sample ID	Location	Latitude	Longitude	PFOA (ppb)	PFOS (ppb)	PFBA (ppb)	PFPA (ppb)	PFHxA (ppb)	PFHpA (ppb)	PFNA (ppb)	PFDA (ppb)	PFUnA (ppb)	PFDoA (ppb)	PFTA (ppb)	PFTeA (ppb)	PFBS (ppb)	PFHxS (ppb)	PFOSA (ppb)
1		-84.90160286	34.63911344	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2		-84.90193265	34.64022661	ND	ND	0.0084	J	0.016	J	0.013	J	ND	ND	ND	ND	ND	ND	ND
3		-84.90159688	34.63904691	0.011	J	ND	0.011	J	0.02	J	0.018	J	ND	ND	ND	ND	ND	ND
4		-84.90048987	34.63836125	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0054	J	ND
5		-84.89832812	34.63317026	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6		-84.89884997	34.63296623	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7		-84.88748418	34.63377587	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
8		-84.89806687	34.63944881	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
9		-84.89657532	34.64249216	0.02	0.019	J	0.0078	J	ND	0.0075	J	ND	ND	ND	ND	ND	ND	ND
10		-84.88438121	34.64380477	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
11		-84.92462289	34.66781761	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12		-84.88130592	34.6425369	0.06	0.017	J	0.0089	J	0.015	J	0.023	J	0.023	ND	ND	ND	0.0094	J
13		-84.88314975	34.63403417	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
14		-84.88880452	34.64144187	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
15		-84.88693477	34.63573385	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16		-84.84917368	34.64173904	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17		-84.8824573	34.63323203	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18		-84.88984576	34.6354794	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19		-84.88984576	34.6354794	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20		-84.89785663	34.63888775	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21		-84.82649312	34.66390999	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22		-84.84103181	34.65179665	0.29	0.24	0.071	0.12	0.14	0.092	0.049	ND	ND	ND	ND	ND	0.36	0.072	ND
23		-84.8453545	34.64426955	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24		-84.84589909	34.64804144	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
25		-84.84752945	34.64050639	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26		-84.85188021	34.63924739	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
27		-84.87955456	34.70497152	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
28		-84.87937318	34.70349497	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29		-84.87868557	34.70583337	ND	ND	ND	ND	0.0048	J	ND	ND	ND	ND	ND	ND	ND	ND	ND
30		-84.8799842	34.70320353	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31		-84.87918376	34.7034393	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32		-84.87785791	34.7032197	ND	ND	ND	ND	0.0031	J	ND	ND	ND	ND	ND	ND	ND	ND	ND
33		-84.87376901	34.70161618	0.0067	J	ND	0.0063	J	0.012	J	ND	ND	ND	ND	ND	ND	ND	ND
Dup		-84.8795456	34.70497152	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34		-84.87761384	34.70380386	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35		-84.87182773	34.70575952	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
36		-84.86631868	34.7051221	ND	ND	0.0068	J	ND	0.004	J	ND	ND	ND	ND	ND	ND	ND	ND
37		-84.86356772	34.70642328	0.011	J	0.043	0.01	J	0.013	J	0.0085	J	ND	ND	ND	ND	ND	ND
38		-84.86150634	34.70602862	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39		-84.86156715	34.70479001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40		-84.86283856	34.70415538	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trp Bk		N/A	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41		-84.85637076	34.70669306	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42		-84.85554573	34.70567838	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43		-84.85710419	34.70489118	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
44		-84.85432106	34.70651568	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
45		-84.85420083	34.70981985	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46		-84.85394226	34.70110054	ND	ND	ND	ND	0.0047	J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup		-84.85637076	34.70669306	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
47		-84.84150527	34.70740886	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48		-84.83946626	34.70932017	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
49		-84.83630476	34.70170758	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50		N/A	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
51		-84.83530972	34.69932085	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.017	J	ND
52		-84.83648342	34.69586139	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
53		-84.83641759	34.69561508	0.0083	J	0.01	J	ND	0.0083	J	ND	ND	ND	ND	ND	ND	ND	ND
54		-84.83653976	34.69450076	ND	ND	ND	ND	0.0039	J	ND	ND	ND	ND	ND	ND	ND	ND	ND

J - Estimated Result: Result is lower than reporting limit.

Attachment P to Dalton Utilities Private Drinking Water Well Monitoring Report

Sample ID	Location	Latitude	Longitude	PFOA (ppb)	PFOS (ppb)	PFBA (ppb)	PFPA (ppb)	PFHxA (ppb)	PFHpA (ppb)	PFNA (ppb)	PFDA (ppb)	PFUnA (ppb)	PFDoA (ppb)	PFTA (ppb)	PFTeA (ppb)	PFBS (ppb)	PFHxS (ppb)	PFOSA (ppb)
55		-84.8365111	34.69341018	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56		-84.83611735	34.69297596	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57		-84.83656583	34.69153316	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58		-84.8383468	34.69354572	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59		-84.82479549	34.69069602	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
60		-84.8272927	34.69069583	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
61		-84.83051626	34.68541702	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
62		-84.82646733	34.68603426	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
63		-84.82913844	34.68656697	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
64 - Dup		-84.83530972	34.69932085	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.018 J	ND	ND
65		-84.82843147	34.68996656	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
66		-84.84103161	34.65179665	0.22	0.2	0.064	0.13	0.14	0.11	0.04	0.0099 J	ND	ND	ND	ND	0.36	0.066	ND
67		-84.83762757	34.70139891	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
68		-84.86749183	34.63005625	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
69		-84.83377265	34.66174404	ND	ND	ND	ND	ND	ND	ND	ND	0.0029 J	ND	ND	ND	ND	ND	ND
70		-84.82944696	34.69167499	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
71		-84.80645618	34.69420113	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
72		-84.80977099	34.69237726	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
73		-84.81886143	34.68866798	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
74		-84.81976178	34.68609127	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75		-84.82766541	34.68563586	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup		-84.82766541	34.68563586	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup #2		-84.82944696	34.69167499	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trip Blk		N/A	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Field Blk		N/A	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
76		-84.90635509	34.73463492	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
78		-84.90635509	34.73463492	0.013 J	0.019 J	ND	ND	0.0074 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79		-84.84291501	34.70340478	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
80		-84.83930047	34.69080676	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
81		-84.84367414	34.68863508	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trip Blk		N/A	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Field Blk		N/A	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup		-84.84367414	34.68863508	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
82		-84.84318398	34.70209918	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
83		-84.84344447	34.70109615	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
84		-84.84174287	34.6854825	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
85		-84.82379058	34.64832853	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
86		-84.82588707	34.65849291	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
87		-84.82377011	34.68618428	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
88		-84.82433265	34.68787691	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89		-84.82555792	34.68889123	ND	0.024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
90		-84.82401446	34.68845269	0.1	0.018 J	0.04	0.08	0.06	0.042	ND	0.023	ND	ND	ND	ND	0.019 J	ND	ND
91		-84.82406658	34.68948535	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup		-84.82379058	34.64832853	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trip Blk		N/A	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Field Blk		N/A	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92		-84.8191339	34.70274791	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
93		-84.82112533	34.6884862	0.01 J	0.062	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
94		-84.82646733	34.68940504	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
95		-84.82436362	34.67907735	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
96		-84.89746152	34.67786713	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
97		-84.95345403	34.72919701	0.018 J	ND	ND	0.011 J	0.023	ND	ND	ND	ND	ND	ND	ND	0.016 J	0.013 J	ND
Trip Blk		N/A	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Field Blk		N/A	N/A	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup		-84.89746152	34.67786713	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
98		-84.90241052	34.73866556	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
99		-84.85513767	34.71645883	ND	ND	0.032	ND	0.024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

J - Estimated Result. Result is lower than reporting limit.

Attachment P to Dalton Utilities Private Drinking Water Well Monitoring Report

Sample ID	Location	Latitude	Longitude	PFOA (ppb)	PFOS (ppb)	PFBA (ppb)	PFPA (ppb)	PFHxA (ppb)	PFHpA (ppb)	PFNA (ppb)	PFDA (ppb)	PFUnA (ppb)	PFDoA (ppb)	PFTA (ppb)	PFTeA (ppb)	PFBS (ppb)	PFHxS (ppb)	PFOSA (ppb)
100		-84.83904855	34.70736269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
101		-84.83628197	34.69316186	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102		-84.85555811	34.63655358	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
103		-84.85420659	34.6372528	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
104		-84.80239815	34.6526412	0.017 J	ND	0.011	ND	0.0096 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
105		-84.82083469	34.70219682	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
106		-84.81047182	34.69280948	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107		-84.84170505	34.700633	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
108		-84.84137941	34.70136457	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
109		-84.84205471	34.70482304	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110		-84.87792202	34.7056123	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
111		-84.9531046	34.71838353	0.084	0.056	0.017 J	0.035	0.061	0.04	ND	ND	ND	ND	ND	ND	0.037	0.056	ND
112		-84.90769191	34.7337633	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup		-84.83904855	34.70736269	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup 2		-84.87792202	34.7056123	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup 3		-84.9531046	34.71838353	0.088	0.062	0.017 J	0.039	0.065	0.047	ND	ND	ND	ND	ND	ND	0.038	0.068	ND
Dup 4		-84.90769191	34.7337633	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
113		-84.97533891	34.70067393	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
114		-84.88605928	34.72722865	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup 5		-84.97533891	34.70067393	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dup 6		-84.88605928	34.72722865	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

J - Estimated Result Result is lower than reporting limit



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-5099-1

Job Description: Dalton PFC Analysis

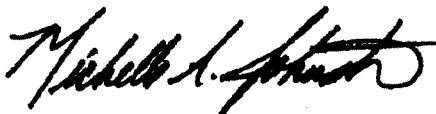
For:

Dalton Utilities

1200 V.D. Parrott Jr. Parkway

Dalton, GA 30721

Attention: Ms. Dena Haverland



Approved for release
Michelle Johnston
Project Manager I
7/27/2010 11:03 AM

Michelle Johnston

Project Manager I

michelle.johnston@testamericainc.com

07/27/2010

The test results in this report relate only to the samples in this report and meet all requirements of NELAP, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.



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CASE NARRATIVE
Client: Dalton Utilities
Project: PFC Analysis
Report Number: 280-5099-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The following report contains the analytical results for two water samples received at TestAmerica Denver on July 7, 2010, according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 1.7°C. No anomalies were encountered during sample receipt.

PFC

Samples [REDACTED] and DUP (280-5099-2) were analyzed for PFC in accordance with SOP DV-LC-0012. The samples were prepared on 07/09/2010 and analyzed on 07/14/2010.

Internal standards 13C2 PFUnA and/or 13C2 PFDoA recovered below the control limits in sample DUP (280-5099-2) and in the LCS and LCSD associated with prep batch 280-2262. These recoveries are within the laboratory's historical limits; therefore, corrective action was deemed unnecessary. Historical limits are used because this is an isotope dilution method; therefore, the internal standard is added to the samples prior to extraction.

DUP (280-5099-2)	13C2 PFUnA at 44% (historical limits 37-130%)
DUP (280-5099-2)	13C2 PFDoA at 36% (historical limits 26-130%)
LCS	13C2 PFDoA at 45% (historical limits 26-130%)
LCSD	13C2 PFDoA at 36% (historical limits 26-130%)

The LCS/LCSD associated with prep batch 280-22262 exhibited relative percent difference (RPD) data above the QC control limit for Perfluorotridecanoic Acid (PFTrA). Both the LCS and LCSD were recovered within the QC control limits. The acceptable LCS and LCSD analyte recoveries provide evidence that the laboratory performed the method within acceptable guidelines; therefore, corrective action is deemed unnecessary.

The method required MS/MSD analyses could not be performed on prep batch 280-22262 (analytical batch 280-22854), due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD data.

Refer to the QC report for details.

No other difficulties were encountered during the PFC analyses.

All other quality control parameters were within the acceptance limits.

FOSA

Samples [REDACTED] and DUP (280-5099-2) were analyzed for FOSA in accordance with SOP DV-LC-0012. The samples were prepared on 07/09/2010 and analyzed on 07/12/2010.

The method required MS/MSD analyses could not be performed on prep batch 280-22263 (analytical batch 280-22662), due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD data.

No other difficulties were encountered during the FOSA analyses.

All quality control parameters were within the acceptance limits.

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-5099-1
 SDG No.: _____
 Instrument ID: LC LCMS5 Analysis Batch Number: 22854
 Lab Sample ID: LCS 280-22262/2-A Client Sample ID: _____
 Date Analyzed: 07/14/10 10:13 Lab File ID: pc50G14014.d GC Column: Gemini-NX ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanioc acid (PFBA)	4.47	Baseline	williamst	07/15/10 08:24
13C4 PFBA (IS)	4.48	Baseline	williamst	07/15/10 08:24

Lab Sample ID: 280-5099-2 Client Sample ID: DUP
 Date Analyzed: 07/14/10 11:04 Lab File ID: pc50G14018.d GC Column: Gemini-NX ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanioc acid (PFBA)	4.48	Baseline	williamst	07/15/10 08:29
Perfluorotetradecanoic acid (PFTeA)	7.93	Baseline	williamst	07/15/10 08:29

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LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-5099-1

SDG No.: _____

Instrument ID: LC_LCMS5 Analysis Batch Number: 22662

Lab Sample ID: MB 280-22263/1-A Client Sample ID: _____

Date Analyzed: 07/12/10 20:48 Lab File ID: pc50G12025.d GC Column: Gemini-NX ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.21	Baseline	williamst	07/13/10 10:05

Lab Sample ID: 280-5099-2 Client Sample ID: DUP

Date Analyzed: 07/12/10 21:14 Lab File ID: pc50G12029.d GC Column: Gemini-NX ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.21	Baseline	williamst	07/13/10 10:05

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-5099-1

SDG No.: _____

Instrument ID: LC_LCMS5 Analysis Batch Number: 22854

Lab Sample ID: LCS 280-22262/2-A Client Sample ID: _____

Date Analyzed: 07/14/10 10:13 Lab File ID: pc50G14014.d GC Column: Gemini-NX ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanioc acid (PFBA)	4.47	Baseline	williamst	07/15/10 08:24
13C4 PFBA (IS)	4.48	Baseline	williamst	07/15/10 08:24

Lab Sample ID: 280-5099-2 Client Sample ID: DUP

Date Analyzed: 07/14/10 11:04 Lab File ID: pc50G14018.d GC Column: Gemini-NX ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanioc acid (PFBA)	4.48	Baseline	williamst	07/15/10 08:29
Perfluorotetradecanoic acid (PFTeA)	7.93	Baseline	williamst	07/15/10 08:29

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-5099-1

SDG ID: _____

Instrument ID: LC_LCMS5 Analysis Batch Number: 22662

Lab Sample ID: MB 280-22263/1-A Client Sample ID: _____

Date Analyzed: 07/12/10 20:48 Lab File ID: pc50G12025.d GC Column: Gemini-NX ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.21	Baseline	williamst	07/13/10 10:05

Lab Sample ID: 280-5099-2 Client Sample ID: DUP

Date Analyzed: 07/12/10 21:14 Lab File ID: pc50G12029.d GC Column: Gemini-NX ID: _____

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctane Sulfonamide (FOSA)	3.21	Baseline	williamst	07/13/10 10:05

SAMPLE SUMMARY

Client: Dalton Utilities

Job Number: 280-5099-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
		Water	07/02/2010 1041	07/07/2010 0915
280-5099-2FD	DUP	Water	07/02/2010 1042	07/07/2010 0915

EXECUTIVE SUMMARY - Detections

Client: Dalton Utilities

Job Number: 280-5099-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
280-5099-1					
Perfluorobutane Sulfonate (PFBS)		0.045	0.020	ug/L	DV-LC-0012
Perfluorobutanoic acid (PFBA)		0.015 J	0.020	ug/L	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)		0.048	0.030	ug/L	DV-LC-0012
Perfluorohexane Sulfonate (PFHxS)		0.060	0.030	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.053	0.020	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.097	0.020	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.11	0.030	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)		0.035	0.030	ug/L	DV-LC-0012
280-5099-2FD DUP					
Perfluorobutane Sulfonate (PFBS)		0.042	0.019	ug/L	DV-LC-0012
Perfluorobutanoic acid (PFBA)		0.013 J	0.019	ug/L	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)		0.045	0.029	ug/L	DV-LC-0012
Perfluorohexane Sulfonate (PFHxS)		0.059	0.029	ug/L	DV-LC-0012
Perfluorohexanoic acid (PFHxA)		0.051	0.019	ug/L	DV-LC-0012
Perfluorooctanoic acid (PFOA)		0.10	0.019	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.083	0.029	ug/L	DV-LC-0012
Perfluoropentanoic acid (PFPA)		0.034	0.029	ug/L	DV-LC-0012

METHOD SUMMARY

Client: Dalton Utilities

Job Number: 280-5099-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Perfluorinated Hydrocarbons	TAL DEN	TAL-DEN DV-LC-0012	
Solid-Phase Extraction (SPE)	TAL DEN		SW846 3535
FOXA in Water (LC/MS/MS)	TAL DEN	TAL-DEN PFC -FOXA	
Solid-Phase Extraction (SPE)	TAL DEN		SW846 3535

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-DEN = TestAmerica Laboratories, Denver, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Dalton Utilities

Job Number: 280-5099-1

Method	Analyst	Analyst ID
TAL-DEN DV-LC-0012	Williams, Teresa L	TLW
TAL-DEN REC-FOSA	Williams, Teresa L	TLW

Analytical Data

Client: Dalton Utilities

Job Number: 280-5099-1

Client Sample ID: [REDACTED]

Lab Sample ID: 280-5099-1

Date Sampled: 07/02/2010 1041

Client Matrix: Water

Date Received: 07/07/2010 0915

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-22854	Instrument ID:	LC_LCMS5
Preparation:	3535	Prep Batch: 280-22262	Lab File ID:	pc50G14017.d
Dilution:	1.0		Initial Weight/Volume:	250 mL
Date Analyzed:	07/14/2010 1051		Final Weight/Volume:	5 mL
Date Prepared:	07/09/2010 0930		Injection Volume:	30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.045		0.0082	0.020
Perfluorobutanoic acid (PFBA)	0.015	J	0.0098	0.020
Perfluorodecanoic acid (PFDA)	ND		0.0078	0.020
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.030
Perfluoroheptanoic acid (PFHpA)	0.048		0.013	0.030
Perfluorohexane Sulfonate (PFHxS)	0.060		0.0070	0.030
Perfluorohexanoic acid (PFHxA)	0.053		0.0029	0.020
Perfluorononanoic acid (PFNA)	ND		0.017	0.040
Perfluorooctanoic acid (PFOA)	0.097		0.0098	0.020
Perfluorooctane Sulfonate (PFOS)	0.11		0.013	0.030
Perfluoropentanoic acid (PFPA)	0.035		0.011	0.030
Perfluorotetradecanoic acid (PFTeA)	ND		0.015	0.030
Perfluorotridecanoic Acid (PFTriA)	ND	*	0.018	0.040
Perfluoroundecanoic acid (PFUnA)	ND		0.0069	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	109		60 - 155
13C8 PFOS	118		45 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-5099-1

Client Sample ID: DUP

Lab Sample ID: 280-5099-2FD

Date Sampled: 07/02/2010 1042

Client Matrix: Water

Date Received: 07/07/2010 0915

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-22854	Instrument ID:	LC_LCMS5
Preparation:	3535	Prep Batch: 280-22262	Lab File ID:	pc50G14018.d
Dilution:	1.0		Initial Weight/Volume:	258 mL
Date Analyzed:	07/14/2010 1104		Final Weight/Volume:	5 mL
Date Prepared:	07/09/2010 0930		Injection Volume:	30 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	0.042		0.0080	0.019
Perfluorobutanoic acid (PFBA)	0.013	J	0.0095	0.019
Perfluorodecanoic acid (PFDA)	ND		0.0076	0.019
Perfluorododecanoic acid (PFDoA)	ND		0.014	0.029
Perfluoroheptanoic acid (PFHpA)	0.045		0.013	0.029
Perfluorohexane Sulfonate (PFHxS)	0.059		0.0068	0.029
Perfluorohexanoic acid (PFHxA)	0.051		0.0028	0.019
Perfluorononanoic acid (PFNA)	ND		0.017	0.039
Perfluorooctanoic acid (PFOA)	0.10		0.0095	0.019
Perfluorooctane Sulfonate (PFOS)	0.083		0.013	0.029
Perfluoropentanoic acid (PFPA)	0.034		0.011	0.029
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.029
Perfluorotridecanoic Acid (PFTriA)	ND		0.017	0.039
Perfluoroundecanoic acid (PFUnA)	ND		0.0067	0.019

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	109		60 - 155
13C8 PFOS	107		45 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-5099-1

Client Sample ID: [REDACTED]

Lab Sample ID: 280-5099-1

Date Sampled: 07/02/2010 1041

Client Matrix: Water

Date Received: 07/07/2010 0915

PFC -FOSA FOSA in Water (LC/MS/MS)

Method: PFC -FOSA
Preparation: 3535
Dilution: 1.0
Date Analyzed: 07/12/2010 2107
Date Prepared: 07/09/2010 0935

Analysis Batch: 280-22662
Prep Batch: 280-22263

Instrument ID: LC_LCMS5
Lab File ID: pc50G12028.d
Initial Weight/Volume: 264 mL
Final Weight/Volume: 5 mL
Injection Volume: 20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND		0.0054	0.047

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 FOSA	71		37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-5099-1

Client Sample ID: DUP

Lab Sample ID: 280-5099-2FD

Date Sampled: 07/02/2010 1042

Client Matrix: Water

Date Received: 07/07/2010 0915

PFC -FOSA FOSA in Water (LC/MS/MS)

Method:	PFC -FOSA	Analysis Batch: 280-22662	Instrument ID:	LC_LCMS5
Preparation:	3535	Prep Batch: 280-22263	Lab File ID:	pc50G12029.d
Dilution:	1.0		Initial Weight/Volume:	251 mL
Date Analyzed:	07/12/2010 2114		Final Weight/Volume:	5 mL
Date Prepared:	07/09/2010 0935		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide (FOSA)	ND		0.0057	0.050

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 FOSA	46		37 - 130